

RISE-Vac—Co-Production of Vaccine Education Materials with Persons Living in Prison

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Increasing vaccination knowledge is effective in addressing hesitancy and is particularly important in populations deprived of liberty who may not routinely have access to health information, ensuring health equity. RISE-Vac is a European Union–funded project aiming to promote vaccine literacy, offer, and uptake in prisons in Europe. We consulted persons living in prisons in the United Kingdom (through the Prisoner Policy Network), France, and Moldova to determine their vaccination knowledge gaps, the information they would like to receive, and how they would like to receive it. We received 344 responses: 224 from the United Kingdom, 70 from France, and 50 from Moldova. Participants were particularly interested in learning about the effectiveness, side effects, and manufacturing of vaccines. Their responses guided the development of educational materials, including a brochure that will be piloted in prisons in Europe. Persons with experience of imprisonment were involved at every stage of this project.

Incarcerated persons have a higher prevalence of infectious diseases than the general community (1). This disparity can be linked to many factors, including contextual factors of the prison setting, such as overcrowding, delays in diagnosis and treatment, and high population turnover (2), and population

characteristics, including higher prevalence of smoking cigarettes and engaging in commercial sex work (3,4). However, some diseases with higher prevalence among prison populations, such as human papillomavirus, influenza, and viral hepatitis (5,6), can be prevented through vaccination. Vaccination remains one of the most cost-effective public health interventions in the community; in the prison context, vaccination could help control infectious disease transmission and outbreaks, reducing illness and death among persons living in prison as well as protecting prison staff and the rest of the community (7,8). However, global data on vaccination in prisons is inadequate; a recent study examining COVID-19 vaccination rates found that, in the 6 countries that had prison vaccination data, rates were lower than for the general population (9).

RISE-Vac (Reaching the hard-to-reach: increasing access and vaccine uptake among prison populations in Europe) is a 3-year project funded by the European Union's Health Programme (10). RISE-Vac is led by the University of Pisa in Pisa, Italy, and consists of 8 further consortium partners based in Cyprus, France, Germany, Italy, Moldova, and the United Kingdom. The project seeks to increase vaccine access and uptake in prison populations across Europe. In this context, prisons include both pretrial and postadjudication facilities. One such intervention is the development and implementation of educational tools aimed at increasing vaccine knowledge in persons living in prison. Educational interventions, including knowledge dissemination through posters, pamphlets, or brochures, have previously been implemented in the prison context and have been shown to increase vaccine literacy and uptake of screening programs (11). Although the COVID-19 pandemic raised awareness of the importance of vaccination in controlling infectious

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diseases and the problems of vaccine hesitancy, this project is not focusing on a specific vaccine but vaccination in general, acknowledging that acceptability differs according to the vaccine and the infection.

Persons who have been or are currently imprisoned are too often left out of the development of interventions targeting prison populations (12). The perspective of those who have this direct experience is likely to be key to increasing the effectiveness and relevance of these interventions. Although robust evidence for engagement of incarcerated populations in co-production is lacking, the World Health Organization advocates for this approach in patient populations, stating that “resources may be better used if they are aligned with patients’ priorities” (13). The RISE-Vac project partnered with persons who had been imprisoned but were now working for the Prison Reform Trust (PRT), a charity in England, to co-produce educational tools on vaccination for persons currently imprisoned across Europe. In this article, we present this co-production methodology and the resulting educational tool, developed with the input of persons who have been imprisoned and those who are currently imprisoned in the United Kingdom, France, and Moldova.

Methods

To direct the development of the educational materials, in early 2022, the United Kingdom Health Security Agency (UKHSA), the United Kingdom partner, set up an advisory group consisting of experts in the field of prison health with knowledge of vaccination in prisons, experts in developing educational materials for persons living in prison, and persons with lived experience of imprisonment from across Europe (Appendix, <https://wwwnc.cdc.gov/EID/article/30/13/23-0812-App1.pdf>). We aimed for a minimum of 1 person per country participating in RISE-Vac to ensure the context of all participating countries was represented; each country did not provide an expert in each area, but we ensured that the advisory group as a whole had experts in all relevant areas.

The PRT has a network called the Prisoner Policy Network (PPN) comprising >700 persons living in all prisons across the 4 countries of the United Kingdom and persons now back in the community. PPN membership is open to anyone who has been in or is currently in prison in the United Kingdom. During the last 6 months of 2022, PRT consulted members of the PPN to obtain their views on vaccines and determine what further information they would like to receive

about vaccination. All PPN members were eligible to participate regardless of their vaccination status or views. Integrating feedback from the advisory group, PRT produced a set of 7 questions to draw out the views of those living in prison. PRT piloted those questions in His Majesty’s Prison (HMP) Rye Hill with a group of 10 incarcerated persons who extended this pilot to their social network. PRT received 30 written responses from HMP Rye Hill and oral feedback on the questions asked. In response, PRT adjusted the order of the questions and included 2 additional questions regarding family views of vaccines (Table).

In early 2023, PRT set out to consult persons from all RISE-Vac partner countries with the questions translated into Romanian, French, and Italian. The RISE-Vac leads in Moldova and France distributed the translated questions to all persons living in prison in 2 prisons in each of those countries. Data were not collected on the demographics of those who responded. At this time PRT ran a focus group in the community in the United Kingdom consisting of 4 persons who had been imprisoned and who identified as vaccine hesitant and 1 moderator with experience of incarceration. The same questions were asked to these participants.

All written responses were translated into English if necessary, collated, and analyzed by using thematic analysis to determine the key concepts (14). After familiarization with the data, initial codes were developed (open coding) by a person from PRT and

Table. Consultation questions to elicit views on vaccination among those living in prison or with lived experience of prison part of the European Union’s RISE-Vac project*

Question no.	Question
1	Have you had any vaccines in your life?
2	Tell us your opinion about vaccination and vaccines in general (not only COVID-19 vaccines).
3	What do you already know about vaccines?
4	What more would you like to know about vaccines?
5	Are you confident you have enough reliable information about vaccines?
6	Who do/would you trust to give you that reliable information?
7	What is the opinion of your friends and family about vaccination and vaccines in general (not only COVID-19 vaccines)?
8	Does the opinion of your family and friends about vaccination matter in your decision to vaccinate? so, how?
9	How would you like to receive the information you want about vaccines? (verbally, short leaflet, detail manual, video, audio, discussion groups)

*RISE-Vac, Reaching the hard-to-reach: increasing access and vaccine uptake among prison populations in Europe.

2 members of UKHSA who had with expertise in qualitative methods. The data were coded independently and then agreed upon in an initial meeting and subsequently refined by a series of discussions. Those discussions led to the organization of the codes into conceptual categories, themes, and subthemes. This process guided the development of a brochure designed to be distributed in all prisons in Europe to enable vaccine learning.

The RISE-Vac project received ethics approval from the Committee on Bioethics of the University of Pisa (approval no. 0049433/2022). This specific piece of work did not require ethics approval because it was a consultation exercise as part of a health improvement initiative. No personal identifiers (e.g., demographic information) were recorded on the response form. No incentives for participation were provided.

Results

PRT received 224 responses from incarcerated persons in the United Kingdom, 50 from Moldova, and 70 from France. Responses were received from both male and female prisons, but data on respondent demographics were not collected at an individual level. It was not possible to establish how many persons had been approached and therefore the number of persons who refused to participate.

Although this convenience sample was not selected on the basis of vaccination status, all respondents had received ≥ 1 vaccine in their lifetime. The key themes were common across the 3 participating countries: views of vaccination, prior knowledge about vaccines, areas of appetite for learning, availability of reliable information, and preferred mechanism for information sharing.

Views on Vaccination

Despite a generally positive view of vaccines from the United Kingdom respondents, some were not as convinced about the benefits of vaccines as others:

“They’re not 100% but they help persons and save lives.”

“I have a certain amount of trust in vaccines, but you can never be 100% about them as after all it is a foreign body going into your own body.”

Similarly, some respondents in Moldova expressed doubts about the effectiveness of vaccines:

“My opinion is that the vaccine is not the best method for protecting your own health.”

“All vaccines do not inspire confidence in me. My opinion is that these vaccines are tests for the population.”

In France, respondents were more positive about vaccines in general but were particularly skeptical about COVID-19 vaccines:

“I believe in traditional vaccines, because they have been researched for years. I have no confidence in COVID-19 vaccines; how come we haven’t been able to find vaccines against AIDS since 1985, and just like that we found vaccines for COVID in 2 years.”

“It could be good for preventing diseases but the anti-vax discourse also has good arguments.”

In the focus group, participants expressed skepticism about the rapid production of the COVID-19 vaccines and the perceived pressure put on the public to take the vaccines. They were more comfortable with established vaccines including vaccines required for tropical diseases when traveling.

Prior Knowledge about Vaccines

Respondents expressed a desire and a need for more information than the basic knowledge they already had regarding vaccines. In the United Kingdom, incarcerated persons reported having the following information about vaccines:

“Nothing scientific really, I try to pick up on any advice and guidance out there. But it can be confusing or misleading.”

“They build or prepare your immune system to effectively fight the virus, allegedly.”

Respondents in Moldova expressed these thoughts:

“Thanks to them, I can get immunity to diseases.”

“We practically do not have any information to confirm that these vaccines help.”

In France, some respondents said they didn’t know anything, or only very little. However, others said that they were aware vaccines aided with immunity and protection from diseases.

Areas of Appetite for Learning

When asked what additional information they wanted to receive about vaccines, many respondents in the United Kingdom felt they already had enough information to make decisions on vaccination. However,

most wanted access to more information, particularly about side effects of vaccines:

“[Nothing] especially. I think I know the basics.”

“Possible side effects. Effectiveness against different viruses. Basic make up and formulation.”

Respondents in Moldova repeatedly asked for detailed information about vaccines:

“Detailed information (where the vaccine is produced, in which laboratory, the consistency of the vaccine)”

“Everything possible: vaccine types, possible side effects, why do I need them?”

In contrast many respondents in France did not want any more information. However, some participants asked for more information on vaccine efficacy, vaccine production processes, contents of vaccines, and side effects of vaccines.

Availability of Reliable Information

Many respondents in the United Kingdom felt they did not have access to reliable information while in prison. However, most respondents felt they already had enough information to make a decision.

Most respondents in Moldova did not feel they had enough information to make an informed decision. This sentiment was echoed in France, where most respondents felt they did not have enough information.

Trusted Source for Reliable Information

Most incarcerated persons expressed that they would trust medical professionals to deliver vaccine information more than other sources, such as custodial staff. The respondents' thoughts regarding family views varied across the countries consulted. In Moldova, respondents' families' views emerged as an important factor affecting their decision, in contrast to respondents from the United Kingdom and France, who did not cite family views as important factors.

Preferred Mechanism for Information Sharing

In the United Kingdom, a short leaflet was the delivery mode most incarcerated persons preferred, followed by verbal delivery, then video. In Moldova, discussion groups with medical professionals were the most favored delivery mechanisms, followed by a detailed manual. In France, verbal delivery was most

popular, although a short leaflet and video also were favored mechanisms.

Materials Developed

In line with the findings of the consultation, we produced an illustrated brochure (Appendix). This initial draft of the brochure is undergoing review by the international advisory committee and UKHSA vaccination experts before wider dissemination.

Discussion

The results of the consultation demonstrate the desire from incarcerated persons to be equipped with accurate information to make informed decisions about vaccines. Many reported the lack of information they have access to in prison and felt limited by this lack. We were in a position to remedy this by producing materials that can be made accessible to persons living in prison and thereby encourage vaccine uptake in prisons.

Incarcerated persons, those who have been imprisoned, or both were involved at all stages of development of this brochure, including the leadership of the work, consultation, and drafting of the brochure and this article. The advisory group and immunization experts provided support, ensuring the robustness of content from a scientific perspective. This true co-development approach is necessary for the development of relevant and ethical materials. Although this approach is not yet widely piloted, we hope that the process of development will ensure that incarcerated persons will engage with the materials that have been informed by their peers. This aspect is important given that a recent scoping review examining COVID-19 vaccination in prisons found high levels of vaccine hesitancy among incarcerated persons and that a lack of educational materials about vaccines increased any concerns, potentially leading to feelings of apathy or beliefs in conspiracy theories (15). The impact of these educational resources will be evaluated during the RISE-Vac study by using a questionnaire survey examining knowledge, attitudes, and behaviors before and 1–3 months after implementation. Longer-term and more extensive evaluation is not possible given restraints on study resources and timeframes.

One limitation of this study is that the consultation process may have been exclusionary to certain cohorts. By using a written format, we may have excluded those with low literacy. We also may have discouraged some persons with negative views of vaccines to participate just by asking them to respond on the subject at a time where some sensitivity

regarding vaccination choices exists, especially in prison. In addition, whereas PPN in the United Kingdom does include women and younger incarcerated persons, its members are overwhelmingly adult men. Therefore, the needs of those with low literacy, those who are vaccine resistant, women, and younger incarcerated persons may have not been captured. Because we did not collect data on the demographic characteristics of respondents and nonrespondents, we cannot be certain about whose views were not gathered. Furthermore, we were unable to collect denominator data and therefore cannot be sure of the response rate, nor how that rate differed by demographic characteristics.

All materials used in this study will be piloted and translated into the languages of all RISE-Vac partner countries and additional languages as relevant to their prison context. In addition, a video animation covering the brochure content will be developed and dubbed. These materials then will be disseminated across Europe through RISE-Vac. Study funding limits meant that there were not resources to develop materials to support discussion groups with medical professionals (the preferred option of respondents) but this aim should be considered as a priority in the future. Similarly, this work demonstrates that participants might benefit from information about specific vaccines, and although it has not been possible to undertake within RISE-Vac, this focus should be a key development for the future. Creators of such materials will be able to build on this work, whether in response to pandemics and outbreaks or for routine vaccination.

Through this consultation process, we recognized a need for vaccine information in prison; incarcerated persons should have access to this resource to make informed decisions. Prisons do not exist outside of society, and so prison healthcare is connected to and impacts public health; prison health is public health (16). We have aimed to address the educational and information needs of incarcerated persons about vaccination to enable them to make informed decisions, ultimately improving vaccine uptake in prisons and aiding society as a whole to improve protection from vaccine-preventable diseases.

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About the Author

Mr. Laryea-Adekimi is a Network Coordinator at the Prison Reform Trust, based in London, and helps manage the Prisoner Policy Network. His research interests include prison education and health and lived experience of imprisonment.

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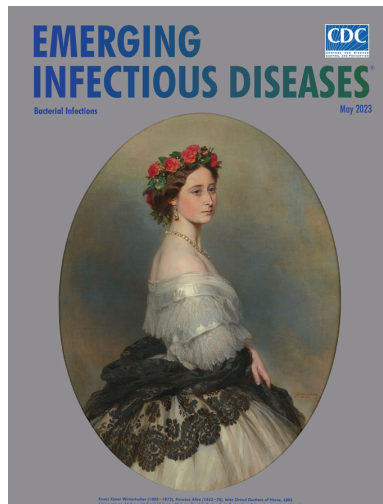
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May 2023

Bacterial Infections

- Trends in and Risk Factors for Recurrent *Clostridioides difficile* Infection, New Haven County, Connecticut, USA, 2015–2020
- Phylogenetic Analysis of Transmission Dynamics of Dengue in Large and Small Population Centers, Northern Ecuador
- Emergence of Erythromycin-Resistant Invasive Group A *Streptococcus*, West Virginia, USA, 2020–2021
- Environmental, Occupational, and Demographic Risk Factors for Clinical Scrub Typhus, Bhutan
- SARS-CoV-2 Seroprevalence Compared with Confirmed COVID-19 Cases among Children, Colorado, USA, May–July 2021
- Disparities in Implementing COVID-19 Prevention Strategies in Public Schools, United States, 2021–22 School Year
- *Leishmania donovani* Transmission Cycle Associated with Human Infection, *Phlebotomus alexandri* Sand Flies, and Hare Blood Meals, Israel
- Case–Control Study of Long COVID, Sapporo, Japan
- Influence of Sex and Sex-Based Disparities on Prevalent Tuberculosis, Vietnam, 2017–2018 [



- Cutaneous Leishmaniasis Caused by *Leishmania infantum*, Israel, 2018–2021
- Fatal Case of Heartland Virus Disease Acquired in the Mid-Atlantic Region, United States
- Case Report and Literature Review of Occupational Transmission of Monkeypox Virus to Healthcare Workers, South Korea
- *Borrelia miyamotoi* Infection in Immunocompromised Man, California, USA, 2021
- Novel Circovirus in Blood from Intravenous Drug Users, Yunnan, China
- Cystic Echinococcosis in Northern New Hampshire, USA
- Therapeutic Failure and Acquired Bedaquiline and Delamanid Resistance in Treatment of Drug-Resistant TB
- Mpox among Public Festival Attendees, Chicago, Illinois, USA, July–August 2022
- Characteristics and Treatment of *Gordonia* spp. Bacteremia, France
- No Substantial Histopathologic Changes in *Mops condylurus* Bats Naturally Infected with Bombali Virus, Kenya
- Comparative Aerosol and Surface Stability of SARS-CoV-2 Variants of Concern

**EMERGING
INFECTIOUS DISEASES**

To revisit the May 2023 issue, go to:
<https://wwwnc.cdc.gov/eid/articles/issue/29/5/table-of-contents>

RISE-Vac—Co-production of Vaccine Education Materials with Persons Living in Prison

Appendix

Terms of Reference and Composition of the WP6 Advisory Group on Improving Vaccination Knowledge of Persons Living in Prison

Purpose of the Advisory Group

This advisory group is created to support the work of the RISE-Vac study, specifically in relation to WP6 (i.e., work package no. 6 of the RISE-Vac project, under which this specific piece of work was conducted), in the aim of increasing vaccine literacy for persons in prison.

The group shall provide advice on matters relating to the development of audiovisual materials for persons living in prison. These may include animations, other types of videos, written materials and audio materials.

The group are expected to undertake the following:

- Advise on the learning outcomes for the materials to be produced
- Advise on the format of materials
- Evaluate the first and subsequent drafts of learning materials developed in English
- Give context-specific advice, so as to guide the development of materials that can be relevant across European prisons

The advisory group will make recommendations and the decision to accept these recommendations will ultimately be made by the lead partner of WP6, UKHSA.

Membership

The advisory group will include representation from

- experts in the field of prison health with knowledge of vaccination in prisons,
- experts in developing educational materials for persons living in prison, and
- persons with lived experience of imprisonment.

We aim for a minimum of 1 person per country participating in RISE-Vac to ensure the context of all participating countries is represented; however due to time constraints this may not be possible at every meeting. There should be a maximum of 12 members. Members are expected to hold office for the duration of the project up until May 2024. If leaving the project before this, they will be requested to select someone to replace them.

As this is an advisory group, there is no minimum number for the meetings to be quorate.

Responsibilities of Members

The membership of the group will commit to:

- attending all scheduled Steering Committee meetings and actively and respectfully contributing to plans and discussions
- commenting on drafts of educational materials
- making timely recommendations and taking action so as to not hold up work
- active participation with the group within and outside of scheduled meetings
- reading of the minutes and all papers in advance any meetings
- open and honest discussions

Communication

Advisory group members will be addressed by e-mail. They will be notified in advance of meetings and agenda and minutes from previous meetings (if relevant) will be circulated. Any inaccuracies on minutes circulated should be raised directly by the advisory group by e-mail.

The minutes will be shared with the project coordinator, University of Pisa, for governance reasons.

Frequency, Location, and Management of Meetings

Advisory group meetings will be scheduled every 1–3 months over teleconference, as required, until the development of the materials is completed. If required subgroup meetings will be arranged outside of these times at a time convenient to subgroup members.

Appendix Table. Advisory Group Composition

Country	Position	Organization
Cyprus	Manager	Nongovernmental organization (NGO)
Cyprus	Deputy director	National Prison Service
France	Doctor working in prisons	Health without Barriers
Germany	Researcher	National NGO
Italy	Prison Researcher	University of Pisa
Italy	Lived Experience	NGO
Ireland*	Centre Manager, Lived experience	Ireland
Moldova	Head of Section	National NGO
Moldova	Deputy director	National Prison Service
Moldova	Deputy director	National Prison Service
Moldova	Head of medical department	National Prison Service
Moldova	Doctor working in prisons	National Prison Service
Moldova	Member	National NGO
UK	Senior Substance Misuse Integration Manager	NHS England and NHS Improvement
UK	Head of Prisoner Engagement, Lived experience	National NGO
UK	Immunization publications manager	UKHSA
UK	Infectious disease specialist	Public health Wales

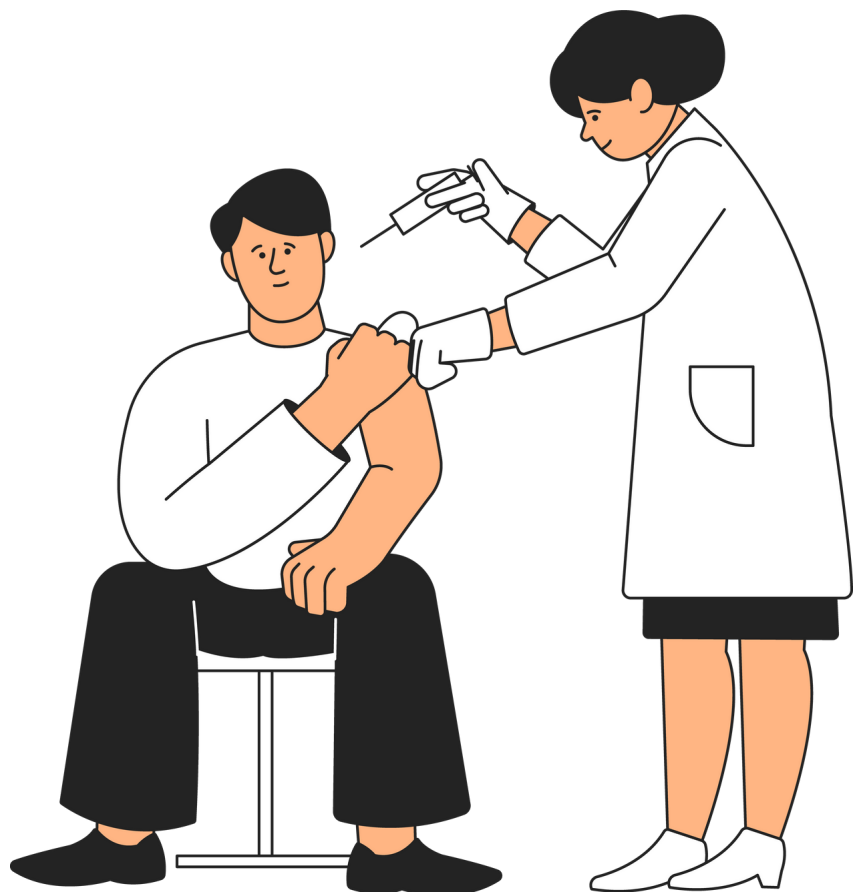
*Chair of the group.

Brochure

The following pages show the first draft of the brochure created after the work described in the article. The draft is currently under review by experts in vaccination communication before wider dissemination among persons living in prison.

VACCINATION IN PRISON

Helping you make informed decisions





This brochure was funded by the European Union's Health Programme (2014-2020). The content of this brochure represents the views of the author only and is his/her sole responsibility; it cannot be considered to reflect the views of the European Commission and/or the European Health and Digital Executive Agency (HaDEA) or any other body of the European Union. The European Commission and the Agency do not accept any responsibility for use that may be made of the information it contains.

PROVIDING WHAT YOU ASKED FOR

It is important to be **informed** when making a decision about medical care, and in prison it can be very difficult to get the information you want. This brochure aims to inform people living in prison about vaccines so that **you** can make informed decisions about vaccination. Hundreds of people living in prisons across Europe were asked what information they would like to receive about vaccines, and we have included the information they requested in this document.

Our project is called **RISE-Vac**. RISE-Vac is a European project aiming to increase knowledge about vaccines in prisons across Europe and is made up of nine different institutions (universities, prisons, medical centres, national public health organisations) across Europe. You can find details of all these organisations on the last page of this document. All of the work, including asking people living in prisons what they wanted to receive, was funded by the European Commission; former prisoners have been deeply involved in the co-production of this brochure and we have drawn on their understanding of prison to make sure that the information is presented in a way that is relevant.

KEY FACTS



1

Vaccines are a very effective way to prevent infections and have been used for over 200 years. Each year **vaccines prevent millions of deaths.**



2

The prison environment often makes it easy for **infection to spread quickly.** Other factors such as poor general health before prison also mean that people living in prison can be more vulnerable to catching infections. That's why it is important for you to have access to vaccines and be informed about vaccination.



3

Vaccines go through a **very careful production process** before being approved for medical use, this includes checking that they are safe and effective.

KEY FACTS

4

Vaccines **teach your immune system** to protect your body from diseases in a safer way than by catching the disease itself. Most vaccines offer a very high level of protection against infections that can be severe or deadly if you catch them.

5

As with any medicine, there can be side effects from vaccination, but these are **usually mild** and rarely have as much impact as actually catching the disease would.

6

Not everyone can be vaccinated. By vaccinating yourself you contribute to **protecting others** from infections too.



If you have any questions about vaccination, you can ask healthcare staff working in the prison.

WHAT ARE THE BENEFITS OF VACCINATION?

Being vaccinated against the most common infectious diseases in prison helps you and others stay healthy.

Vaccines are a very effective way to prevent infections, each year vaccines prevent millions of deaths. Being vaccinated against the most common infectious diseases in prison will help you stay healthy. It is much safer for your body to learn how to fight a disease through vaccination, than by catching the disease and treating it.

Not everyone can be vaccinated. For example some of those who are being treated for cancer cannot receive certain vaccines. By vaccinating yourself, you contribute to protecting others from infections too.

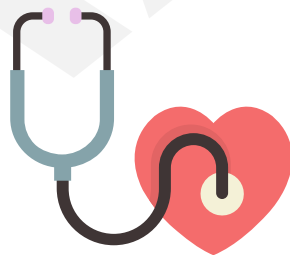
The more people in your prison who are vaccinated, the better the **protection** will be as the disease will have less chance to spread widely.

WHY IS VACCINATION SO IMPORTANT IN PRISON?

People living in prison are more at risk from infectious diseases than other people in the community.

Risk factors prior to prison

People in prison may be more likely to be exposed to infectious diseases or become seriously ill from these diseases for the following reasons:



Underlying health conditions

People living in prison may have poorer general health when they come into prison than the average person of the same age outside prison. They may have pre-existing conditions such as heart problems, asthma, arthritis, cancer or diabetes which can make them more vulnerable to infections.

WHY IS VACCINATION SO IMPORTANT IN PRISON?



Other risk factors

People living in prison may have suffered periods of homelessness or rough sleeping which can make them more vulnerable to infection, and may have received limited access to healthcare and health information. Some people may also have been exposed to infection through unclean needles or unprotected sex.

The prison environment

The prison environment makes it easy for diseases to enter and spread, for the following reasons:



Sharing of cells, showers, toilets, and other communal spaces

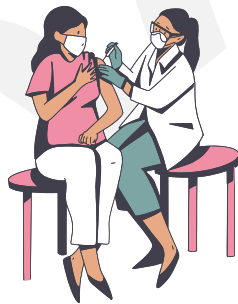
Infectious diseases can easily spread through people using the same spaces and touching the same surfaces.

WHY IS VACCINATION SO IMPORTANT IN PRISON?



High number of people in an enclosed space

Prisons hold a lot of people and when you include staff that number increases. This makes it easier for infectious diseases to spread from one person to the next; and many prisons are not well ventilated.



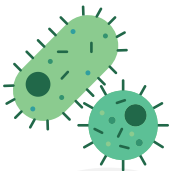
High turnover of people

People move from prison to prison as they serve their sentence. Staff also go in and out of prison. This flow of people through the prisons means there are many opportunities for infectious diseases to enter prisons.

HOW DOES VACCINATION WORK?

Vaccines work with your body's immune system to build protection against infection.

Vaccines reduce the risk of getting a disease by working with your body's immune system to build protection. When you get a vaccine, your immune system responds by:



Recognizing the invading germ, such as the virus or bacteria



Producing antibodies which are produced naturally by the immune system to fight disease.



Remembering the disease and how to fight it so if you are exposed to the germ again, your immune system can quickly destroy it before you become unwell.

HOW DOES VACCINATION WORK?

Our immune systems are designed to **remember**. Once exposed to one or more doses of a vaccine, we usually stay protected against a disease for years, decades or even a lifetime.

Rather than treating a disease after we get it, vaccines help stop us getting ill with the disease in the first place. It's much safer for your immune system to learn this through vaccination than by catching the diseases and treating them.

Vaccines are often given by injection but some can be given by mouth or sprayed into the nose. Some vaccines are given in multiple doses, and it's important to have all the doses to be fully protected, whilst some require only one

HOW ARE VACCINES PRODUCED?

Like all medicines, every vaccine must go through very serious and robust testing to make sure it is safe and effective before it can be given

A new potential vaccine will only be tested on humans after it has gone through many rigorous safety tests in the lab, including animal testing.

Promising vaccines that are thought to be safe and effective are then tested in human volunteers. This is done in several phases, and at every stage the safety of the vaccine is assessed. People who participate in these trials are adequately informed and consent to their participation.

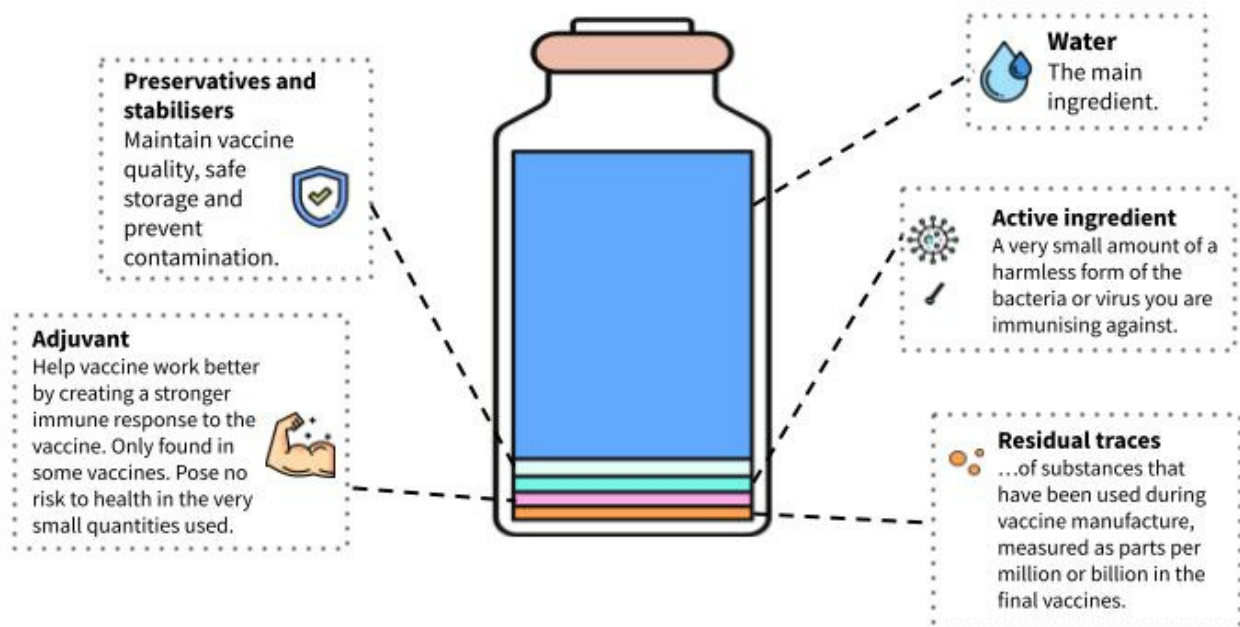
Doctors and independent scientists, as well as government health officials, inspect the results of these trials before vaccines are approved and licensed for use. A vaccine must be proven safe and effective before it will be approved. Vaccines are then monitored after being approved for the public.

HOW ARE VACCINES PRODUCED?

Safety is assessed even after a vaccine has been fully licensed. Most countries have a system to feedback information about side effects. These records are used to check safety and make sure that vaccines continue to be as safe as possible.

Pharmaceutical companies, like all private companies, do make financial profit, but it is in their interest to produce safe vaccines which will protect people from disease.

The ingredients of a vaccine include:



HOW ARE VACCINES PRODUCED?

Some vaccines are included in the routine schedule and have been licensed for a very long time, for example the hepatitis B vaccine, whilst others are given in response to particular outbreaks or for groups that are particularly at risk, such as COVID-19 vaccination. COVID-19 vaccination was developed rapidly in response to a pandemic in which no one had protection from this new disease that was spreading rapidly, so there was great urgency. Therefore, more resources were made available and the vaccine was able to be produced 'more quickly'. Different trial phases were run at the same time to help speed up the process and administrative barriers were removed, so things worked far quicker than usual, but approvals processes remained as important as ever.

SIDE EFFECTS

While vaccines can have side effects, most are mild and severe side effects are extremely rare.

All medicines can cause side effects, but vaccines are among the very safest. Research from around the world shows that vaccination is a very safe way to protect you, your family and your child's health.

Because of how vaccines work, it's always possible to have side effects after vaccination. These are often as a result of your body's immune system being activated to fight the vaccine as planned. Each person's body and immune system is different and that is why the reaction will be different for each person.

Most side effects are mild, such as a low-grade fever, or pain or redness at the injection site. You can use common painkillers such as paracetamol to manage your symptoms. Mild reactions go away within a few days on their own. Severe or long-lasting side effects are extremely rare. Any rare side effects that are discovered are investigated further.

SIDE EFFECTS

Very rarely, people can have an allergic reaction soon after vaccination. This reaction may be a rash or itching affecting part or all of the body. The doctor or nurse giving the vaccine will know how to treat this. It does not mean that you should stop having vaccinations. Even more rarely, children or adults can have a severe reaction, within a few minutes of the vaccination, which causes breathing difficulties and can cause you or your child to collapse. This is called an anaphylactic reaction. A recent study has shown that there is only 1 anaphylactic reaction in about a million vaccinations. An anaphylactic reaction is a severe and immediate allergic reaction that needs urgent medical attention. The people who give vaccinations are trained to deal with anaphylactic reactions and children and adults recover completely with treatment.

You can always ask healthcare staff in prison about the side effects of any vaccine.

HOW EFFECTIVE VACCINES HAVE BEEN

Vaccines prevent up to 5 million deaths worldwide every year.

The story of polio vaccination

Do you know anyone with polio?



If not, this is probably because of vaccination. More than 1.5 million deaths in children have been avoided thanks to the polio vaccine, and more than 18 million people can walk today who would otherwise have been paralysed. Wild poliovirus cases have decreased by over 99% since 1988, from an estimated 350 000 cases in more than 125 endemic countries then, to 6 reported cases in 2021.

HOW EFFECTIVE VACCINES HAVE BEEN

Vaccination is a key part of primary health care. It reaches more people than any other health service worldwide. Vaccination currently prevents 3.5-5 million deaths every year from diseases like diphtheria, tetanus, pertussis, influenza and measles. Smallpox was a very deadly disease before the introduction of the smallpox vaccine. Since 1980, after a mass vaccination effort, there are no longer any cases.



Since vaccines were introduced we have seen far fewer cases of diseases such as polio, which can cause serious illness, disability or even death. As these diseases become rarer, they become less visible. However, if people stop having vaccines, it's possible for serious infectious diseases that have become rare to quickly spread again.

VACCINES YOU MAY COME ACROSS IN PRISON

Hepatitis B - protecting against liver cancer or liver failure. Hepatitis B caused an estimated 820,000 deaths worldwide in 2019.

COVID-19 - protecting against severe disease, especially for older people or at risk adults with a weakened immune system

HPV - protecting against cervical cancer, penile cancer, head and neck cancer, and anal cancer. Approximately 95% of all cervical cancers are caused by HPV.

Influenza (Flu) - very important for risk groups (pregnant women, people with health conditions such as severe asthma, diabetes, having cancer treatment, those experiencing severe mental health difficulties, or severe learning disabilities) and to prevent prison outbreaks

VACCINES YOU MAY COME ACROSS IN PRISON

Tetanus, diphtheria and polio - protects against tetanus, diphtheria and polio, which can cause severe disability and death

Pneumococcal - protects against pneumonia and meningitis, which can cause severe disability and death

Meningococcal - protects against meningitis, which can cause severe disability and death

Measles, Mumps and Rubella (MMR) - protects against measles, mumps and rubella, which can cause severe disability and death

A FINAL WORD...

Vaccination is an important way of preventing infectious disease for all, but it is particularly important for people living in prison. People living in prison should have the right to access the same vaccinations as people in the community, and should have access to information about vaccines.

Vaccination helps protect your health and the health of those you come into contact with while in prison, as well as those you'll be in contact with when released. Healthcare institutions have partnered with non-governmental organisations, academic institutions, former prisoners, prison services and government agencies across Europe to create materials that people living in prisons wanted regarding vaccines.

We hope that this brochure has been useful to you.

FURTHER QUESTIONS

If you have further questions about vaccination or your health, please discuss this with your healthcare staff in your prison.

If you'd like to know more about how we developed this brochure you can contact:

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If you have any questions about the RISE-Vac project, please contact

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