Rethink and Reduce inequalities in HPV vaccination through personalized commune at for and based on social innovation and behavioural determinants of health



D2.3 HPV VACCINATION PERSONALISED Communication Matrix December 2023





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LIST OF ABBREVIATIONS

Acronym	Description
EU	European Union
WP	Work Package
GA	Grant Agreement
т	Task
D	Deliverable



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EXECUTIVE SUMMARY

The Deliverable D2.3 "HPV vaccination personalised communication Matrix" represents another pivotal point of the ReThinkHPVaccination project. Building on the previous two deliverables (D2.1 and D2.2), it intends to provide a robust communication base for countries with lagging HPV vaccination rates, highlighting the role of multiple actors on three levels – micro, meso and macro.



INTRODUCTION

At the heart of the ReThinkHPVaccination project is the aim to change the communication strategies used for explaining the HPV vaccination narrative in Central and Eastern European Countries, based on the understanding on how the decision to get vaccinated forms in one of the biggest countries in the region – Romania. This new communication model is encompassed in "HPV vaccination personalised communication Matrix".

By analysing and assessing the citizens' perceptions and attitudes on HPV infection and HPV vaccination before 2020 and before the COVID-19 pandemic, one of the conclusions of the ReThinkHPVaccination Consortium was that the rate of vaccination can be increased by developing and implementing personalized communication knowledge & training resources, based on social innovation and assessment and targeted interventions on the behavioural determinants of health.

To ensure efficacy, the interventions should be carried at multiple levels – micro, meso and macro, with involvement of key opinion leaders from each group that impacts the HPV vaccination course:

- Medical Specialists, Family doctors and Nurses they deal both with parents and relatives as well as with the target group of girls/boys.
- School doctors and psychologists (where available) they deal mostly with the children.
- Sanitary mediators and community health assistants / other health workers, depending on the zone are key health communication and dissemination factors in vulnerable communities and have a social status, dealing both with the family and the children.
- Regional sanitary authorities they deal with family doctors and other health workers described above.
- Teachers are key communicators and disseminators in the children group and can have a major impact on the parents.
- Parents.
- NGOs representatives with activities in the sector.

The HPV Vaccination subject it is not only impacted by the classical anti-vaxx theories, but as well as by the cultural aspects - HPV vaccination is a very sensitive subject because it involves the prevention of a possible sexually transmitted disease from an early age. In societies with a strong traditional and religious background like Romania (over 80% of the population is Orthodox Christian) and in which around half of the population lives in rural



areas, it is very difficult to communicate these messages efficiently. Romania is also an ex-communist country (1944 -1989) and although the communist political approach was not identical to the Soviet Union after Nicolae Ceausescu's rise to power in 1965, Romania has strong communist beliefs - a 2023 survey showed that more than 50% of the respondents believe that the actual situation in Romania is worse than 30 years ago (seven years ago, only 40% of Romanians had that opinion, and in 2020 with the pandemic starting, 60%).



METHODOLOGY

Based on the results from the national HPV vaccination survey (Deliverable 2.2.), the research carried in Deliverable D2.1, the vaccination ambassadors identified by the respondents, the expertise of stakeholders involved in the project and other scientific literature sources, we created a matrix focused on HPV vaccination personalised communication.

To implement personalized communication knowledge & training resources, we used the approach based on the assessment followed by targeted interventions on the behavioural determinants of health at micro, meso and macro level. The HPV vaccination behaviour matrix has 3 dimensions:

- Micro-dimension family members, inner circle of close friends who can influence HPV vaccination behaviour.
- Meso-dimension community influencers who can influence HPV vaccination behaviour, such as medical influencers - gynaecologists, family doctors, nurses, as well as cultural influencers – teachers, religious leaders, mayors (especially in rural areas)
- Macro-dimension (inter)national influencers driven by traditional media and social media who can influence HPV vaccination behaviour.

Moreover, based on the responses from D2.2, we've identified 6 main groups of people and constructed 6 use-cases for further dissemination and communication purposes.



1. SUMMARY OF SURVEY - SEE ANNEX 1

- > Most respondents (79%) have heard about HPV infection.
- Nearly 6 out of 10 believe the optimal age range for vaccination is between 10 and 15 years, and few think it is between 0 and 9 years.
- Among the respondents, 67% did not receive recommendations regarding vaccination.
- > 1 in 2 (54%) believe that vaccination should largely become mandatory.
- Over half of the respondents (57%) consider the HPV vaccination to be safe or very safe.
- > Both respondents (93%) and their children (95%) are not vaccinated against HPV.
- > The main reason for not getting vaccinated is the lack of recommendation (90%).
- There is a strong association between HPV and cervical cancer in the perception of 7 out of 10 respondents.
- > Over half believe that HPV vaccination prevents the onset of cervical cancer.
- Nearly a quarter of respondents have had or know someone diagnosed with cancer.
- > Doctors are considered the most trustworthy source of medical information.
- > Research on HPV and vaccination is primarily based on doctors' advice.
- Nearly a third discuss health issues with their family doctor and a quarter with their family.
- Choosing a medical specialist is largely based on recommendations from the family doctor (general practitioner).
- Most parents (9 out of 10) vaccinate their children according to the mandatory schedule.
- > For the flu vaccine, just under half (49%) vaccinate their children.
- Over half of the respondents (60%) have been vaccinated against COVID-19, and 38% did so on the recommendation of their family doctor.



2. COMMUNICATION MATRIX

PERSONALISED COMMUNICATION MATRIX FOR **HPV VACCINATION**



DIRECT TARGETING INDIRECT TARGETING MACRO . Media outlets; Policymakers, Key opinion Personalised communication from healthcare providers.
Social media campaigns.
Mobile health apps with reminders and educational content. leaders 2 MESO Health Professionals (Gynecologist, Family doctor, other MESO CHANNELS doctors); Schools; Workplaces; other Community centres 2 3 Educational programs in schools and workplaces. • Community health events and workshops. • Collaboration with community leaders and influencers. MICRO Individuals, including adolescents; young adults, parents; family and close friends MACRO CHANNELS 2 3 4 National media campaigns (TV, radio, online)
Policy briefs and advocacy with government and health organizations. • Partnerships with national healthcare providers and NGOs. **KEY FACTORS** CONTINOUS ASSESSMENT OF EFICACY AND Frequency Type of message Medium & channels Momentum PERSONAL ISATION MODEL BELOW PERSONALISED INITIAL Assessment ROUNDS OF ASSESSMENT INTERVENTIONS HEALTH INFORMATION ALREADY AVAILABLE

Figure 1 HPV Vaccination Communication Matrix

3. GROUPS IDENTIFIED

3.1. Well-Informed and Pro-Vaccination Group

- Characteristics: Aware of HPV and its risks, likely to consider HPV vaccine safe, and open to mandatory vaccination.
- Communication Strategy: Continue to provide updated and detailed information about HPV and the vaccine's effectiveness in preventing cancers associated with the virus. Highlighting personal stories or testimonials could be effective.



3.2. Uninformed or Indifferent Group

- Characteristics: Limited knowledge about HPV, low awareness of vaccination benefits, and less engagement with medical information sources.
- Communication Strategy: Simplified, engaging educational campaigns focusing on the basics of HPV virus and infection, risks associated with the virus, and benefits of vaccination. Use of visual aids and easy-to-understand language is crucial.

3.3. Parents of Minors

- Characteristics: High adherence to mandatory vaccination schedules, concerns about vaccine safety, and influence from family and physicians.
- Communication Strategy: Provide clear, evidence-based information about the safety and benefits of HPV vaccination for children. Engage paediatricians and family doctors as key informants.

3.4. Healthcare Reliant Group

- Characteristics: Rely heavily on medical professionals for information and decisions regarding health.
- Communication Strategy: Work closely with healthcare providers to disseminate accurate and up-to-date information about HPV vaccination. Organize informational sessions in healthcare settings.

3.5. Socio-economically Challenged Group

- Characteristics: Financial constraints impacting the ability to access vaccines and healthcare services.
- Communication Strategy: Provide information on government programs, subsidies, or free vaccination campaigns; Highlight the long-term cost-effectiveness of vaccination.
- Build long-term strategies for socio-economic wellbeing (others than providing access to vaccination and health services).

3.6. Sceptical or Safety-Concerned Group

• Characteristics: Concerns about vaccine safety, influenced by misinformation or lack of trust.



• Communication Strategy: Address common myths and misconceptions directly. Provide transparent information about vaccine development, safety protocols, and monitoring.

3.7. Anti-vaxxers

- Characteristics: Convinced about vaccine unsafety, influenced by complex misinformation, fake-news and anti-vaxx leaders; promoters of anti-vaxx narrative.
- Communication Strategy: Do not target them directly but try to understand the social context they live in and communicate indirectly through messages that favour finding the right time and channel to reach them directly.
 - Indirect Communication: Avoid direct confrontations about vaccines; instead, engage in broader conversations about health and well-being.
 - Utilize Trusted Channels: Engage with platforms or individuals they trust. This could include local community leaders, peers, or even family members who share his views but are open to dialogue.
 - Emphasize Personal Stories and Testimonials: Sharing narratives from individuals who were once sceptical but have had positive experiences with vaccination can be more effective than statistical data or official health guidance.
 - Focus on Common Ground: Identify areas of agreement, such as the importance of family health and well-being, and use these as starting points for discussions.

4. USE CASES

4.1. Well-Informed and Pro-Vaccination Group

- Profile Name: Ana
- Age: 35
- Occupation: School Teacher
- **Key Characteristics**: Ana is well-informed about HPV and its associated risks. She believes in the safety and efficacy of vaccines and supports making the HPV vaccine mandatory. Ana often reads medical journals and follows healthcare news.



- **Motivations**: Ana is motivated by the desire to protect herself and her community, especially her students, from preventable diseases. She values scientific evidence and trusts healthcare professionals.
- **Possible Actions**: Ana is likely to participate in health advocacy, spread awareness, and encourage others to get vaccinated. She will also be a responsible mother and will vaccinate her children when the time comes.

4.2. Uninformed or Indifferent Group

- Profile Name: Mihaela
- **Age**: 28
- Occupation: IT Professional
- **Key Characteristics**: Mihaela has heard of HPV but doesn't know much about it. She rarely visits the doctor and doesn't actively seek health information. She hasn't formed a strong opinion on the HPV vaccine.
- **Motivations**: Mihaela's primary concern is her immediate health and convenience. She might be open to vaccination if presented with straightforward, compelling information.
- **Possible Actions**: Mihaela could be influenced by an effective information campaign, especially if it uses digital media and clear messaging.

4.3. Parents of Minors

- Profile Name: Iulia
- **Age**: 42
- **Occupation**: Accountant
- **Key Characteristics**: Iulia is a parent who follows the mandatory vaccination schedule for her children. She is cautious about new vaccines and seeks advice from her children's paediatrician or family doctor.
- **Motivations**: Iulia's main concern is her children's health and safety. She values expert opinions and wants to make informed decisions.
- **Possible Actions**: Iulia might consider HPV vaccination for her children if provided with clear safety data and recommendations from trusted healthcare providers.

4.4. Healthcare Reliant Group

- Profile Name: Dorin
- **Age**: 50



- **Occupation**: Government Employee
- **Key Characteristics**: Dorin relies heavily on his family doctor for healthrelated decisions. He respects medical authority and often shares health tips with friends and family.
- **Motivations**: Dorin trusts the medical system and follows the advice of healthcare professionals. He is motivated by a sense of duty to maintain his health.
- **Possible Actions**: Dorin is likely to recommend vaccination to his daughter or granddaughter if his doctor recommends it and might encourage his peers to do the same.

4.5. Economically Challenged Group

- Profile Name: Elena
- Age: 30
- Occupation: Part-time Worker
- **Key Characteristics**: Elena is aware of health issues but faces financial barriers to accessing healthcare services. She is concerned about the cost of vaccines and often postpones non-urgent medical care.
- **Motivations**: Elena's primary concern is affordability. She would be more inclined to vaccinate if there were financial support or free vaccination programs.
- **Possible Actions**: Elena might seek out HPV vaccination for herself or her family if she's aware of and can access financial assistance.

4.6. Sceptical or Safety-Concerned Group

- **Profile Name**: Bogdan
- **Age**: 38
- Occupation: Freelance Journalist
- **Key Characteristics**: Bogdan is sceptical of new medical treatments and vaccines. He often reads various sources, including some promoting vaccine scepticism. He values personal freedom and choice in healthcare decisions.
- **Motivations**: Bogdan's concerns stem from a desire for autonomy and a cautious approach to what he perceives as new or untested interventions.
- **Possible Actions**: Bogdan might be swayed by transparent information that addresses his concerns directly, especially if it comes from authoritative and unbiased sources.



4.7. Anti-vaxx Group

- **Profile Name**: Cosmin
- **Age**: 40
- Occupation: Marketing and Sales Representant / Small Business Owner
- **Key Characteristics**: Cosmin is deeply sceptical of mainstream medical advice, particularly regarding vaccines. He frequently consumes and shares information from alternative news sources and social media groups that promote anti-vaccination narratives.
- Strongly values personal freedom and autonomy in health decisions and is distrustful of governmental and pharmaceutical interventions.
- **Motivations**: His scepticism is fuelled by a combination of mistrust in large institutions, a desire for control over personal health choices, and a sense of duty to protect his family from what he perceives as harmful interventions. He is driven by a community-oriented mindset, often engaging in local groups and discussions that align with his views.
- **Possible Actions**: Cosmin may be open to changing his views if presented with information in a non-confrontational manner, especially from sources within his trusted community.
- Testimonials or stories from individuals who once shared his views but have since reconsidered could be impactful.
- Engaging him in discussions around the broader benefits of public health measures, without directly challenging his current beliefs, could gradually shift his perspective.

5. Conclusion and recommendations

The survey conducted to understand public perceptions of HPV infection and vaccination in Romania has provided valuable insights, yet it inherently possesses certain limitations regarding how the vaccination decision is taken. Primarily, the survey's quantitative nature means it captures a broad overview but may not delve into the optimal level of detail required to fully understand the complexities and nuances of individual attitudes and behaviours. It's crucial to recognize that while the survey highlights general trends and patterns in knowledge, attitudes, and practices regarding HPV vaccination, it doesn't fully capture the depth of personal experiences, cultural influences, and specific motivations that drive individual decisions.

In the upcoming work package dedicated to the Pilot Project in Romania, we aim to partially address these gaps through qualitative methods, such as focus groups. Ideally, in future initiatives, we will engage advanced sociological techniques like Personal



Network Analysis (PNA), to gain a deeper and more nuanced understanding of the factors influencing HPV vaccination decisions.

Based on the current finding, we make the following recommendations:

- 1. **Targeted Awareness Campaigns:** Given that 79% of respondents are aware of HPV infection, continue to build on this awareness with targeted campaigns. Focus on the 21% who are not yet informed, using platforms they are likely to engage with.
- 2. **Age-Specific Messaging:** Tailor messages to address misconceptions about the optimal age for HPV vaccination. Highlight the importance of vaccinating children between 10 and 15 years, as nearly 6 out of 10 respondents already consider this the best age range.
- 3. Addressing Vaccination Hesitancy: With 67% of respondents not receiving vaccination recommendations, there's a need for proactive communication from healthcare providers. Encourage doctors to discuss HPV vaccination with patients, emphasizing its safety and importance.
- 4. **Reinforcing Safety Perceptions:** With over half of the respondents considering the HPV vaccine safe, reinforce this perception through testimonials, expert opinions, and scientific data. Address any concerns or myths in a clear, understandable manner.
- 5. Leveraging Doctor-Patient Relationships: Since doctors are the most trusted source of medical information, leverage this relationship in communication strategies. Encourage healthcare providers to initiate conversations about vaccination and offer credible information.
- 6. **Utilizing Family Influence**: With a significant portion of respondents discussing health issues with family, incorporate family-cantered messaging in campaigns. Encourage family discussions about the importance of vaccinations.
- 7. **Building on Existing Vaccination Practices**: Utilize the fact that most parents follow the mandatory vaccination schedule to encourage additional vaccinations like HPV.
- 8. **Multichannel Approach**: Use a combination of traditional media, social media, community events, and healthcare settings to disseminate information, ensuring a wide reach across different demographics.
- 9. **Feedback and Adaptation:** Continuously gather feedback from the public to understand their concerns and adapt communication strategies accordingly. This could involve surveys, focus groups, or social media monitoring.