

MOMENTUM

Routine Immunization Transformation and Equity

COVID-19 Vaccination Program in Review

May 2022 – June 2024

SERBIA





MOMENTUM Routine Immunization Transformation and Equity

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Acronyms

CE	collective engagement
CME	continuing medical education
E&E	Europe and Eurasia
IPH	institutes of public health
NGO	nongovernmental organization
SBC	social and behavior change
USAID	U.S. Agency for International Development



Results

Strengthening the Health System



Trained **51** continuing medical education course trainers who facilitated **65** courses for **1,662** health professionals.



99 percent of continuing medical education course participants who completed the post-evaluation form stated that it **improved their knowledge and understanding** of healthy lifestyles, COVID-19 vaccination, and immunization in general.

Reaching Underserved and Priority Populations



Held **154 collective engagement events** with 2,311 participants.



81 percent of priority population members who participated in collective engagement workshops reported after these sessions that **they believe that COVID-19 is a moderate/high health concern.**



56 percent of individuals that attended a collective engagement workshop reported they **had set up an appointment with their doctor** to confirm that they could safely get the COVID-19 vaccine.

Background

The first COVID-19 case in Serbia was reported in March 2020.¹ To control the spread of the virus, the government of Serbia used strict curfews and limited social interactions and use of public spaces. Vaccines became available in Serbia in December 2020 and mass vaccination efforts began in February 2021. Despite universal health care and access to free COVID-19 vaccines, coverage lagged and the country experienced several additional epidemic waves.² One reason for lagging vaccination coverage was hesitancy. Among Balkan countries, researchers found the lowest level of trust in political authorities in Serbia, including belief that health authorities did not have the public's best interest at heart when recommending the COVID-19 vaccine.³ Priority populations (pregnant women and people ages 45 and older with a chronic disease) were also hesitant about vaccination and had particularly low vaccine acceptance rates.⁴ Another challenge to vaccine uptake was that medical specialists for priority populations did not receive training or information on COVID-19 vaccines, so did not recommend them. In addition, by the fall of 2022, fatigue about COVID-19 made vaccinations less of a priority among partners and the general public. Based on the most recent data available, 39 percent of the population has received at least one dose of the COVID-19 vaccine.⁵

- 1 Statistical data about the COVID-19 virus in the Republic of Serbia. Institute of Public Health of Serbia "Dr. Milan Jovanović Batut." <https://covid19.rs/homepage-en/#~:text=In%20the%20Republic%20of%20Serbia%2C%20the%20first%20case%20of%20COVID.all%20parts%20of%20the%20country.>
- 2 Jovanovic, Verica et al. 2023. "Mandatory and seasonal vaccination against COVID-19: Attitudes of the vaccinated people in Serbia." *Epidemiological Infection*. 151: e83.
- 3 Cvjetkovic, Smiljana et al. 2022. "Societal Trust Related to COVID-19 Vaccination: Evidence from Western Balkans." *Sustainability*. 14(20):13547.
- 4 Mandić-Rajčević, Stefan. *Effective Vaccine Public Engagement Strategies*. Laboratory for Infodemiology and Infodemic Management.
- 5 Serbia. *Coronavirus Resource Center*. Johns Hopkins University. Last updated March 10, 2023. <https://coronavirus.jhu.edu/region/serbia>.



Project Overview

MOMENTUM Routine Immunization Transformation and Equity (the project) applies best practices and explores innovations to increase equitable immunization coverage in USAID-supported countries. The project is USAID's flagship technical assistance mechanism for immunization and is active in 12 countries and has supported over 18 countries. It builds countries' capacity to identify and overcome barriers to reaching zero-dose and under-immunized children and older populations with life-saving vaccines and other integrated health services, including rebuilding immunization systems adversely affected by the COVID-19 pandemic. It also supports COVID-19 vaccine rollout across countries with a wide range of circumstances and needs.



In May 2022, the project received funding to support the increased uptake of COVID-19 vaccination in Serbia by:

- Mitigating vaccine hesitancy and encouraging acceptance through tailored social and behavior change (SBC) activities.
- Strengthening the capacity of health care providers to respond to vaccine hesitancy among clients.
- Convening a scientific advisory group that collaborates with other groups of scientists to strengthen COVID-19 vaccination communication.

Certain program activities (e.g., the situational analysis, SBC activities for vaccine demand generation, media education) were co-funded by a separate complementary USAID Europe and Eurasia (E&E) Regional Bureau investment.

To begin its work in Serbia, the project applied a behavior integration approach to design, implement, and monitor its activities. This approach starts by clearly defining the desired behaviors of priority populations to achieve a specific goal (e.g., pregnant women get the full course of the COVID-19 vaccine). It then focuses on what people must do to overcome obstacles or build on motivators to achieve that behavior, and designs or adapts interventions that are linked clearly to the behavior via critical factors that affect them.⁶ Using this approach, the project developed an intervention to encourage [pregnant women](#) and [individuals with chronic diseases](#) (ages 45 years and older) to get the vaccine; while also increasing their providers' recommendation of the COVID-19 vaccine. This two-pronged intervention, focused both on provider and community behaviors, helped create demand and increased awareness and uptake by:

- Focusing on vaccination as part of a healthy lifestyle across the life course. This broader longer-term strategy can be adapted to other immunizations.
- Targeting individuals who can benefit most from vaccination.
- Strengthening health professionals' capacity to recommend vaccines: COVID-19, human papillomavirus, influenza, and pneumococcal.
- Strengthening learning networks within Serbia and across the region.
- Collaborating with key stakeholders to ensure program sustainability.

⁶ Cogswell L, Jensen L. Guidelines for Assessing the Enabling Environment Conditions for Large Scale, Effective and Sustainable Handwashing with Soap Projects. WSP, Washington, DC. 2008 Jan 1.

Technical Areas of Support

TECHNICAL AREAS



COVID-19 scientific advisory group



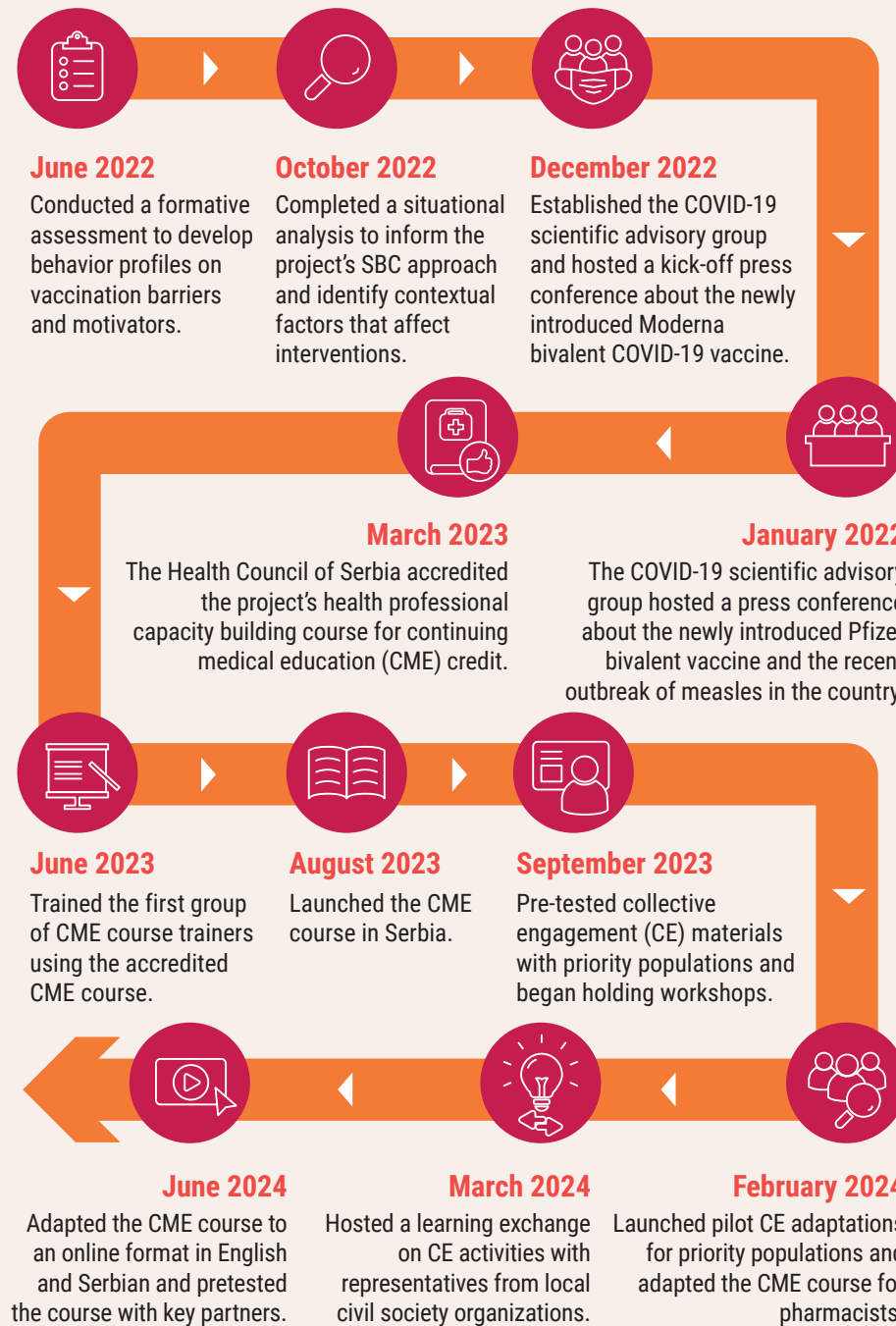
Health professional capacity building



Community engagement



Correcting mis- and disinformation through media relations



Strengthening Policies and Confidence in Immunization



COVID-19 scientific advisory group

Vaccine hesitancy, especially among priority populations and health specialists, was a critical problem in Serbia when the project began activities. As identified during the project's preliminary research, most people in priority populations were hesitant to get vaccinated, and trust in the medical system needed strengthening to support improved vaccination efforts. The project worked closely with USAID/Serbia to develop a COVID-19 scientific advisory group of academics, scientists, and medical doctors from the University of Belgrade Institute of Microbiology and Immunology and Faculties of Medicine, Pharmacy, and Philosophy to answer common COVID-19 related questions and correct immunization misconceptions for the public and media.

Bivalent vaccines were introduced in Serbia in December 2022 (Moderna) and January 2023 (Pfizer) as booster doses. Following each introduction, the advisory group organized a press conference during which members answered COVID-19-related questions and addressed concerns. In January, the event provided an opportunity to bring attention to the concurrent measles outbreak in Serbia, thereby strengthening messaging about vaccination as part of a healthy lifestyle. The press conference was cited by 13 news outlets, increasing the reach of evidence-based information on vaccination throughout Serbia.

The group also worked closely with the government as evidenced in November 2023 when the country's stock of Pfizer monovalent vaccine doses, which were registered exclusively as primary doses, expired. Since bivalent vaccines were only registered as booster doses and as such were not authorized for use for primary vaccination, the National Immunization Technical Advisory group and the COVID-19 scientific advisory group successfully advocated for the national Institute of Public Health (IPH) to re-register the remaining bivalent doses for use in the primary series.



Strengthening the Health Workforce



Health professional capacity building

One of the challenges of increasing COVID-19 vaccination uptake in Serbia was that health specialists for priority populations were not recommending vaccines to patients who were at increased risk of adverse outcomes from COVID-19. In response, the project and the COVID-19 scientific advisory group developed a CME course that involved a knowledge-based pre-test quiz; sessions on basic immunology, COVID-19 vaccination as part of a healthy lifestyle, and high-quality patient care; a post-test quiz; and an evaluation form. The project's local partner, National Alliance for Local Economic Development, pre-tested the course and used feedback to ensure content was relevant, engaging, and accurate. Course methodology included a variety of participatory learning methods such as case studies, role-plays, and self-assessments.

In March 2023, the CME course was accredited by the Health Council of Serbia and in May, the project held the first CME training of trainers for 30 IPH staff from districts with low vaccination coverage. These trainers would go on to facilitate the CME course with health professionals in their districts and municipalities. The project designed this approach to ensure course sustainability.

By April 2024, the project trained 51 people who facilitated 65 CME courses for 1,662 health professionals, who in turn have the ability to reach 2.6 million people across the implementation districts.*⁷ Among the roughly 80 percent of CME course participants who responded to the evaluation, 98 percent expressed confidence in applying their learning to their work and appreciated the participatory approaches used in the course. Ninety-nine percent of respondents said the CME course improved their knowledge and understanding of COVID-19 vaccines, healthy lifestyles, and high-quality service.

In Serbia, pharmacists cannot give vaccines, but pharmacies are embedded in every community and pharmacists often see residents more frequently than regular doctors do. The COVID-19 scientific advisory group and the project collaborated with the Pharmaceutical Chamber of Serbia to adapt and roll out the CME course for pharmacists

to help ensure that all health professionals provide consistent and accurate information on vaccines and vaccination. While the main focus was COVID-19 vaccination, the skills learned through the CME course are relevant for other vaccines as well. The project conducted 12 trainings for 223 pharmacists. The CME course is available in an eLearning format in English and Serbian, and the Public Health Association will continue to offer the course to health professionals.

COVID-19 Vaccination as Part of a Healthy Lifestyle (illustrations for the CME course)

OČUVAJMO SVOJE ZDRAVLJE

Vakcinišite se – primite vakcinu protiv COVID-19

Kao osoba sa hroničnom bolešću, želite najbolje za Vas i Vašu porodicu. Očuvanje Vašeg zdravlja pokazuje Vašoj porodici koliko ih volite.

Koraci koje možete preduzeti

VAKCINIŠITE SE i smanjite rizik od dobijanja COVID-19 i post-kovid stanja.

Vakcinišite se i zaštitite sebe. Pitajte svog lekara kako vakcinacija može da vas zaštiti, čak i ako ste alergični na penicilin, lateks, poten i druge alergene.

Vakcinišite se i osnažite svoj imunski sistem da zauzdravi virus.

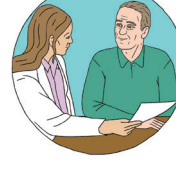
Vakcinišite se i obezbedite dodatnu zaštitu. Čak i ako ste prethodno preležali COVID-19, konsultujte lekara kako vakcinacija protiv ovog virusa pruža dodatnu zaštitu.

Vakcinišite se i zaštitite se od povećanog rizika od COVID-19 u slučaju da imate bolest srca ili pluća, dijabetes, astma ili hronična bolest srca ili pluća.

Vakcinišite se i sprečite težak oblik bolesti ili smrt usled COVID-19 ako već imate neko od visokorizičnih stanja kao što su gojaznost, dijabetes, astma ili hronična bolest srca ili pluća.

Vakcinišite se i zaštitite se. Ako bolujete od raka ili ste bili onkološki pacijent, konsultujte lekara kako vakcinacija može da Vas zaštiti.

DANAS JE DOBAR DAN DA SE POČNE



OČUVAJMO SVOJE ZDRAVLJE

Vakcinišite se – primite COVID-19 vakcinu

Vakcine su važan deo zdravog stila života, odmah po rođenju i kasnije tokom života – ovo važi i za vakcine protiv COVID-19.

Vakcine protiv COVID-19 su deo zdravog stila života. One vas štite od teških oblika bolesti, hospitalizacije i smrti usled infekcije.

Potrebno je da se vakcinišete, čak i ako ste prethodno preležali COVID-19.

Vakcine protiv COVID-19 su bezbedne za vas i za vaše nerođeno dete.

Vakcine protiv COVID-19 mogu da umanje rizik od nastanka post-kovid stanja koja uključuju hronični zamor, kratak dah i kardiovaskularne probleme.



DANAS JE DOBAR DAN DA SE POČNE.

⁷ Official Gazette of the Republic of Serbia. (February 2023). Rule Book. Detailed conditions for performing healthcare activities in healthcare institutions and other forms of healthcare services. https://www.paragraf.rs/propi-si/pravilnik_o_blizim_uslovima_za_obavljanje_zdravstvene_delatnosti_u_zdravstvenim_ustanovama_i_drugim_oblicima_zdravstvene_sluzbe.html.

* The provider reach assumption is being applied for nurses, doctors, and pharmacists.

Reaching Underserved and Priority Populations



Community engagement

While building the capacity of health professionals to convey accurate information, the project sought to increase COVID-19 vaccine demand and uptake among priority populations through a behavior-led strategy. It used collective engagement (CE), a participatory learning process that facilitates multiple interactions and exchange of ideas and knowledge among participants.

The project developed materials for CE workshops on healthy eating, exercising regularly, and keeping up to date with vaccinations, including COVID-19, across the life course. It trained local nongovernmental organization (NGO) *Associjacija Duga* (Association Rainbow) staff to use the materials, and in June 2023, Association Rainbow pre-tested CE messages and healthy lifestyle illustrations with health workers and members of priority populations. The project and Association Rainbow refined the materials, including puzzles, role-plays, and case studies, based on pre-test feedback. This ensured that the materials reflected community members' concerns and motivators and allowed them to be part of the creation of materials.



Project partner Association Rainbow held **154 CE workshops** with **2,311 participants** from key populations across **18 districts**.

During the workshops, the facilitators conveyed information about healthy lifestyle behaviors and COVID-19 vaccination, and at the end of the session asked each participant to commit to an incremental action, such as talking to their doctors, to reach the end goal of getting vaccinated against COVID-19. Three weeks after the workshop, 98 percent of participants responded to a follow-up call from CE facilitators to check on their progress on commitments and vaccination status. All participants

who gave permission also received SMS messages to remind them about the healthy lifestyle approach. These messages were tailored to participants' vaccination status. For example, if the person received one vaccine dose after the CE workshop, s/he was praised and encouraged through text message by the CE facilitators to take actions to receive the second dose.

Participants said the workshop sessions provided valuable information and encouraged many of them to get vaccinated. They particularly liked the role-play and puzzle activities. Pregnant women were especially interested in information about human papillomavirus vaccination, and all were interested in the nutrition and vaccination sessions. Given this enthusiasm, the project adapted the workshop to other disease areas, such as influenza, and incorporated more healthy lifestyle information.

As part of the approach to continuous and adaptive learning, the project made several adaptations based on facilitator and participant feedback. For example, participants noted that the decision to get vaccinated is often a family—not an individual—decision. Pregnant women expressed a need for their partners to be involved so they too could learn about healthy lifestyles and the importance of vaccines, and make a joint decision about getting vaccinated. People over the age of 45 with a chronic disease also said that family members should fully participate in decision making. Based on this feedback, Association Rainbow adapted the workshops for pregnant women and their partners, and people over the age of 45 with a chronic disease and their family members. Attendees stated they enjoyed learning about the importance of COVID-19 vaccination as part of a healthy lifestyle. Young people who attended with family members who had a chronic disease said they were grateful to talk about healthy lifestyles because they rarely had that opportunity. Similarly, partners valued learning about how the vaccine can protect pregnant women and babies after birth.

Association Rainbow has included the healthy lifestyles training, including immunization, into their accredited training for teachers in Serbia. In addition, they expect to have government funding to support continued CE workshops in one city and will continue to seek government funding for other cities.

Communicating in a Crisis

Correcting mis- and disinformation through media relations

The media was critical during the COVID-19 pandemic. TV and radio stations gave people up-to-date information about disease spread, prevention, and shutdowns. However, mis- and disinformation also spread rapidly through social and traditional media.

As a co-funded activity with USAID's E&E Regional Bureau, the project engaged the Serbian Association of Journalists to dispel mis- and disinformation about COVID-19. The COVID-19 scientific advisory group hosted four press conferences to convey accurate information and strengthen the relationship between the media and public health practitioners. Topics included the Moderna and Pfizer bivalent COVID-19 vaccines, healthy lifestyle behaviors, and vaccination efforts. These conferences helped Serbian journalists identify key public health figures who could serve as a network of resources for evidence-based information and access a peer support group to better report on immunization.

Serbian journalists also participated in regional dialogs hosted through the project's E&E activities and had access to the Internews "Let's Talk Vaccines" course in Serbian. Since all project materials frame COVID-19 vaccination within a broader healthy lifestyles framework, they will remain relevant and journalists can continue using them to convey accurate vaccination information.



Lessons Learned



Tailoring approaches promoted desired behaviors among different groups.

- Using the behavior integration approach, the project was able to customize engagement approaches based on specific concerns for different priority populations. Recognizing these specific concerns was indispensable for drafting effective messages and behavior change interventions.



Participatory approaches increased people's interest and comfort when learning health information.

- Role-plays, games, self-assessments, puzzles, and case studies were novel and effective ways to introduce concepts to Serbian health professionals and community members, who are more familiar with didactic learning. Participants found these approaches more engaging and enjoyable, and showed that concepts can be taught in a variety of ways. As one participant said, "Such conversations remain in people's minds."



Framing COVID-19 as part of a healthy lifestyle is effective and will continue to be used to promote other health behaviors.

- The project intentionally framed COVID-19 vaccination as part of a healthy lifestyle and used local NGOs and health professionals to facilitate project activities. Since activities did not solely focus on COVID-19 and were led by local actors, other projects and organizations can continue to use materials for different health efforts and populations. Project partner DUGA has included the healthy lifestyles materials in their accredited training for school teachers and trainings for the local community health service. The CME curriculum has also been shared with additional project countries who are adapting the materials for their use.



Involving stakeholders early and consistently made materials relevant.

- The project consulted government stakeholders, community partners, health professionals, and priority populations in the development, design, and pre-testing of materials and activities. These stakeholders also participated in adaptive learning discussions throughout the project to continually improve activities. This early and sustained engagement made materials and activities relevant to the people the project wanted to reach.
- CE workshop participants provided ongoing feedback on communication strategies, materials, and content. The project made adaptations based on their recommendations, which strengthened people's investment in the workshops and increased the project's outreach efficacy.



Building direct linkages between IPH and the media supported accurate health reporting.

- Building linkages between scientific institutions and media outlets enabled journalists and others working in the media to have direct access to public health experts who could give them clear, consistent, and correct information.

A Way Forward

Serbia struggled to increase COVID-19 vaccination uptake due to hesitancy, a health workforce with limited knowledge of vaccination and immunology, unclear COVID-19 vaccination policies, a lack of trust in the government, and weak media connections. The project framed COVID-19 as part of a healthy lifestyle as it trained health professionals, involved community members, and educated journalists. Health professionals now have skills to communicate with patients more effectively. Community engagement activities included broader health topics such as nutrition and life course vaccination, giving people knowledge to approach their own health

and that of their families holistically, which can benefit successive generations. The scientific advisory group, as a trusted entity providing evidence-based information to the public and media, added credibility and helped roll out the project's initiatives. The project's work in Serbia served as a model for other USAID COVID-19 programs in the region and its legacy includes a CME course that health professionals can continue to access; a more informed public about vaccination; and a scientific advisory group to support new health initiatives and provide journalists with evidence-based health and vaccination information.





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