Designing Social and Behavior Change Solutions to Support Pediatric COVID-19 Vaccine Uptake: A Technical Brief

As countries continue to expand eligibility for COVID-19 vaccination, programs will benefit from considering how efforts to encourage pediatric vaccine uptake may differ from supporting uptake in the broader population. This brief guides practitioners and policymakers through applying a behavioral design approach to developing tailored social and behavior change solutions.

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Designing SBC solutions to support pediatric vaccine uptake

After striving to vaccinate adults for COVID-19, many countries across the world have started to open vaccine eligibility to children. WHO has approved the <u>Pfizer</u> and <u>Moderna</u> vaccines for children aged 6 months and older and the <u>COVOVAX</u> vaccine for children aged 12 and older, although many countries have approved other vaccines for children after examining available safety and efficacy data. Differing formulations and availability have resulted in an often staggered approach, where adolescents aged 12–17 years are the first to become eligible, followed by children 5–11. Though healthy children may be less susceptible to severe COVID-19 than older adults, pediatric vaccination is important for managing community transmission, both to protect families and communities overall. In addition, children with immunocompromising conditions and with comorbidities face higher consequences of COVID-19 and remain an important priority audience to consider.

As countries continue to expand their eligibility for the COVID-19 vaccine and consider opportunities for integration into routine immunization services, program implementers need to consider how efforts to support pediatric vaccine uptake may differ from supporting uptake in the broader population, despite similar barriers to demand. Socio-behavioral science approaches can help support pediatric vaccine uptake by understanding how children, adolescents, and their parents or guardians learn about and understand the need for vaccination, perceive COVID-19 and the safety and benefits of COVID-19 vaccines, and make decisions regarding vaccination. These insights can help to develop tailored social and behavior change (SBC) solutions to promote high vaccine confidence and uptake. This technical brief is a guide to applying behavioral design approaches to support pediatric COVID-19 vaccine uptake by walking SBC practitioners, RCCE stakeholders, and relevant policymakers through this process:

- 1. Identify the vaccination objective and audience members to focus on.
- 2. Consider the social and behavioral drivers of both vaccine hesitancy and uptake.
- 3. Develop tailored solutions that address identified drivers of hesitancy and uptake.

Step 1: Identify the vaccination objective and audience members to focus on

Developing a clear understanding of the vaccination objective and how it aligns with the country's national strategy and National Immunization Technical Advisory Group (NITAG) recommendations is the first step towards improving uptake. By understanding the intended audience and where to focus efforts, SBC programs can ensure they are addressing the right problem as they build approaches to encourage pediatric vaccination.

First, determine the population of focus:



Identify the group of children to focus on: Consider what age children are eligible to receive the vaccine locally, whether children of certain ages or comorbidities are being prioritized by the EPI in the country, and whether particular age ranges or communities have lower or higher rates of vaccine uptake compared to others. For example, a program might initially focus on communities where COVID-19 vaccine uptake has been high among adults, as they may be more likely to accept getting their children vaccinated than places with greater adult hesitancy. Because the delivery context and vaccine decision-makers may differ, clearly identifying the intended population is an important first step.

Action point: Leverage existing data to better understand the focus population's health service needs and uptake, including routine immunization trends since COVID-19.

Next, consider the primary and key secondary audiences:



<u>Consider the role of parents and extended family in children's vaccine uptake:</u> Parents and other guardians play a key role in whether children get vaccinated for COVID-19. Most localities require parental consent for assenting children under 18 years old. However, parents may still share decision making considerations with their children or other family members, depending on the child's age and community norms. Finally, although this brief specifically focuses on children aged five to 17 years old, many of the same considerations for design will apply to vaccinating young adults aged 18 and over, who may still be under parental influence but do not need guardian consent to take up the vaccine.

Action point: Consider leveraging existing social or behavioral data related to the community of interest to better understand these extended family dynamics when it comes to healthcare decision-making.



<u>Consider important influencers on the primary audience that will also likely</u> <u>need to be engaged:</u> Teachers, <u>health workers</u>, and community leaders will be central actors in SBC program approaches given their influence on children and their parents and may be intended audiences for efforts as well. They need to buy in and feel supported to fulfill their role, but first, they may also have their own vaccine hesitancy that will need addressing before they can do so.

Action point: Examine previous campaign planning documents targeting this pediatric age range for additional audiences, networks, and organizations, such as sporting and youth associations, to include in planning.

Then, identify the steps primary audiences need to take to get vaccinated:



Identify where children can get vaccinated: Consider all the different locations and moments when a pediatric audience can be vaccinated that currently exist or could be planned for; for example, schools, mobile sites, or primary care clinics. Programs should also consider whether the vaccines are available on a rolling basis or are constrained to a period of time. In many contexts, schools are the first entry point for vaccinating children, which has many advantages, but they can pose some additional challenges for reaching youth who are out of school. Each location and time comes with distinct challenges and opportunities and may require the engagement of different or multiple stakeholders (e.g., Ministry of Health, Ministry of Education). Other considerations include whether parents will be present at the location where children are vaccinated and if parental consent must be obtained in advance.

Action point: Look at national micro-plans for routine immunization and COVID-19 vaccine outreach, as well as where existing child health services are already offered in the community (e.g., schools or pharmacies).



<u>Consider how decision makers learn about the vaccine and steps they need to</u> <u>take</u>: Explore where and how parents and their children learn about their eligibility for the vaccine and how much time passes between learning and vaccination itself. In some cases, children may be able to get vaccinated immediately after learning they're eligible, or parents and children may need to take a variety of next steps before successfully getting the vaccine at another time or location. For example, parents may need to sign forms if implied consent is not sufficient, or may need to make an appointment at the health clinic for the vaccine to be administered.

Action point: <u>Journey mapping</u> can be helpful to understand all the steps that need to be taken and decisions to be made in order to get a child vaccinated.



<u>Consider specific constraints or objectives</u>: While programs need to be flexible and creative in determining which solutions may be most appropriate for ensuring widespread pediatric vaccine uptake, they may need to narrow the approach's focus if SBC practitioners only have the capability to reach children at a specific point (e.g., if they are mandated to work through schools, or if vaccines have an upcoming expiry date) or if a specific step in the vaccination process is more challenging (e.g., evidence shows that parents don't return consent forms).

Action point: Engage key stakeholders early and often to better understand what might be real opportunities or constraints in this context, without necessarily narrowing the approach too soon.

At this stage, practitioners need to avoid assumptions about the barriers and facilitators for the primary audience(s). Rather they need to be open to considering how a variety of factors could influence vaccine uptake based on the context. This will aid developing the right solution for the challenge at hand.

Step 2: Consider the social and behavioral drivers of vaccination hesitancy and uptake

Once the program as clearly defined the intended audience and relevant decision makers, it should consider the broader context in which they are making and acting on their decisions. As is the case with adult vaccination, various factors in parents' and children's environments might influence whether they will accept the vaccine. These factors can interact with each other to serve as either barriers or facilitators, depending on the context.

First, identify relevant factors that can act as barriers or facilitators to pediatric vaccine uptake:



<u>Reflect on the following questions for each relevant decision maker</u>: The "decision maker" in question may be the parent or guardian, the child themselves, or both, and a range of factors can influence how they make decisions or act on them:

- Are they concerned about children getting infected with COVID-19 or becoming seriously ill?
- Do they have all the information they need related to the risks of COVID-19 infection and benefits of getting vaccinated?
- Do they trust the vaccine is effective?
- Do they trust it is safe for children?
- Do they have close influencers who have accepted or rejected the vaccine for themselves or their children?
- Is the process for getting vaccinated clear and convenient to them?

Action point: Consider the illustrative examples in the boxes below and review available evidence and resources to help identify which factors are the most important contributors to consider in the setting. If no relevant local study is available nor feasibility to conduct one, a small number of interviews or focus group discussions with parents and adolescents could help identify which factors to prioritize.

Next, reframe identified barriers as opportunities for design:



<u>Consider facilitators of uptake</u>: Once the program has identified the most challenging contextual barriers, consider how to reframe them as opportunities for focused solutions.

Action point: If such barriers are prominent in the setting, the question blocks in the next section provide suggestions for consideration when designing targeted solutions in Step 3.

Are parents or children concerned about children getting infected with COVID-19 or becoming seriously ill?

Consider how the following factors may influence how parents/guardians and young people think about the need and urgency to get vaccinated:

Parents and children may not perceive COVID-19 is a serious risk to children. Children were not prioritized during initial vaccine roll-outs, and most COVID-19 messaging focused on persons most at risk, including older adults and those who are immuno-compromised. Adolescents may assume they have already successfully avoided or recovered from infection and are immune. With schools reopened and other infection prevention measures relaxed, parents and adolescents may see no reason to vaccinate now if they perceive no serious risk.

Any consequences of COVID-19 infection can feel distant compared to present concerns. Even if adults are aware of the potential risk their children face from COVID-19 or young people perceive their own risk, that concern may seem remote compared to more present fears about potential side effects from the vaccine, leading to hesitancy and procrastination. Adolescents can be especially biased focus on the present, especially if they haven't seen any young people become very ill from COVID-19 in their community.

Children's fear of needles can outweigh concerns about the disease. Adolescents and children may be wary of needles; their association with pain may also elevate perception of risks for other side effects. Adolescents who do not see themselves at risk from COVID-19 may rather wait until they perceive benefits that can outweigh these anticipated discomforts, and parents may want to spare their children pain.

Opportunity for design: Highlight the benefits of vaccination



Leverage the desire to protect: Parents are strongly motivated to protect their child and will more likely act if they perceive their child is vulnerable to harm. Adolescents may be more willing to advocate for getting vaccinated to their parents if they are aware they can still catch and pass the virus to vulnerable relatives.



Create or highlight a benefit:

Parents or adolescents who do not see an urgent need to get vaccinated are more likely to get the vaccine if they perceive some other benefit—social or material—to make it worth any perceived fears or inconveniences. Do they have all the information they need related to the risks of COVID-19 infection and benefits of getting vaccinated?

How information is delivered and by whom can have a significant influence on decisions to get vaccinated:

There may not be sufficient information available to parents about pediatric COVID-19 vaccines. Publicly available information about COVID-19 vaccines may be outdated, reflecting earlier phases of the vaccination campaign that excluded children, and the latest recommendations and guidance around newly available pediatric vaccines may be obscured or hard to find.

Parents and guardians may be confused with the complexity of information available about pediatric vaccines. Information about pediatric COVID-19 vaccines is often complex, and literacy and connectivity, if this information is primarily available online, can be barriers to accessing it. Parents and youth may have questions about vaccine type, size and number of doses, injection pain, and side effects, but seeking answers may be burdensome; many who face time and resource constraints may focus on other priorities instead.

Parents and children find it difficult to distinguish credible, accurate vaccine information. Peers are a common source of information, but they may provide incomplete or incorrect responses based on what they hear from others. Social media makes information more accessible, but rumors circulate, and misinformation can get amplified, making it harder for credible voices to break through. Faced with conflicting information, people may be more likely to wait and see what happens to others.

Opportunity for design: Facilitate credible information access



Provide timely and trustworthy information: Parents and adolescents who receive credible information about the vaccine from a trusted source (e.g., Ministry of Health, teachers, health workers) avoid having to seek out information themselves from less reliable sources.



Make it easy to understand and act on: Parents and adolescents feel more confident to take the vaccine when they can get answers in an easily understandable and engaging format. In the Philippines, this <u>Guide to COVID-</u> <u>19</u> discusses the vaccine in a way adolescents can relate to.

Do they trust the vaccine is effective and is safe for children?

Common worries that may influence trust in the vaccine include:

Parents and adolescents question the vaccine's effectiveness at preventing infection: While many COVID-19 vaccines are protective against severe disease or death, no vaccine is 100% effective at preventing infection and the possibility of "breakthrough" COVID-19 infections has been well publicized. Parents and adolescents familiar with other pediatric vaccines may consider the fact that they might still get sick even when vaccinated as proof that the COVID-19 vaccine does not work and so is not worth the perceived risks.

Parents and guardians are concerned about the rapid speed of COVID-19 vaccine development. While many pediatric vaccines have decades of use proving their efficacy and safety, the unprecedented speed to develop the COVID-19 vaccine and limited data available on pediatric and adolescent COVID-19 vaccination in low- and middle-income countries may raise parental concerns about long-term unknowns. Early media coverage of adverse effects from specific vaccines identified after roll-out may reinforce these concerns.

Parents and guardians have concerns about safety for children. Parents familiar with routine immunization for children under five, may worry that vaccines are not considered "routine" for children five to 17 years old. Parents can also be concerned about ingredients or fear that young bodies can't bear what they assume is the adult dose. Parents who personally experienced vaccine side effects may also want to spare their children. People also tend to conflate rare adverse events with common side effects and may perceive more than a remote risk for children.

Parents and adolescents may distrust that authorities have their best interests in mind. Parents and youth are exposed to many rumors about the vaccine which spread quickly and widely; even when few people believe the misinformation, its spread still feeds into general hesitancy. Where governments have a reputation for corruption or mismanaging funds, or where harmful colonial or corporate influences have been experienced, suspicion of local and foreign actors' intentions can increase distrust in the vaccine development, vetting and approval, and distribution processes.

Opportunity for design: Build on established trust



Leverage trusted voices and dialogue: Parents and youth who receive credible guidance about the vaccine's safety and effectiveness from sources they trust (health workers, teachers, religious leaders) and can discuss lingering concerns are more likely to have the confidence to take up their recommendation.



Frame as routine and safe: Parents of children who have taken every recommended vaccine without any problems, and who have experienced the benefits of child immunization in their community may be more favorable to vaccinating their children for COVID-19 if the vaccine is framed as having gone through the same vetting and quality assurance processes as those other pediatric vaccines.

Do they have close influencers who have accepted or rejected the vaccine for themselves or their children?

Social pressure—whether positive or negative—can impact vaccine decision-making:

Parents and children who don't see other young people in their community getting vaccinated may believe it is not the norm. People are sensitive to what friends are doing, and peer perspectives can outweigh other information sources. Moreover, people are often afraid to act differently from their peers. Since people don't know whether peers or their children have been vaccinated unless either they witness it or the vaccine recipient discloses it, individuals easily may assume others have not gotten vaccinated or must disapprove. When vaccines are administered at school, it may be easier to create a social norm around vaccination since it may be more obvious who got vaccinated and who did not.

Influential community members may have publicly expressed doubts about COVID-19 vaccines for children. Parents sensitive to recommendations of respected teachers, local health workers, or community leaders may also refrain from vaccinating their child if they don't hear an explicit endorsement from these influential persons. If such gatekeepers are unvaccinated themselves, they may not promote the vaccine to others or could spread negative beliefs about them. Where leaders object to the vaccine on religious grounds, parents may feel this gives them no choice in the matter.

Extended family support might be needed to get a child vaccinated. Most children require a guardian's consent, but sometimes vaccination decisions cannot be made by one, or even both, parents alone; they may require buy-in or approval from extended family members. If elder family members have negative attitudes about the vaccine, parents and adolescents may not feel free to act against them.

Parents worry that they may be judged for their decision to vaccinate or not vaccinate by other parents and community members. In communities where people express negative attitudes about the vaccine loudly, guardians may fear being considered bad parents. Since vaccination is not a visible behavior, they may also just assume that other parents are not vaccinating their children and fear experiencing social sanctions if they do so.

Opportunity for design: Build on established trust

Prompt sharing: People with close peers who disclose their vaccine status, reasons for vaccinating their children, and positive experiences are more likely to be receptive to vaccination. Hearing or seeing that someone they identify with is vaccinated also enables them to picture themselves or their children getting vaccinated.



Create a visible norm: Where local communities have approved of the vaccine, people share their vaccine status openly, and other children are seen to be getting vaccinated, parents feel more confident to do so as well. Seeing vaccinated peers may also make vaccination more attractive for adolescents, who want to stay up to date with trends. In contexts where <u>social</u> <u>media</u> is widely available, programs can use it to reach communities of young people throughout the country.

Is the process for getting vaccinated clear and convenient to them?

The degree to which parents or guardians perceive getting children vaccinated as convenient may influence their decision to do so, especially if they have some hesitancy about the vaccine. Even without vaccine hesitancy, access barriers can prevent follow-through on intentions.

The process to get children vaccinated may not be clear for parents and guardians. Following through on vaccination can be an obstacle if the process is not clear, or if access is frequently disrupted due to interruptions in service delivery and vaccine supply. When vaccination is outside schools and the process requires extra steps, such as pre-registration, identification verification, or online appointment booking, follow through becomes more cumbersome and may reduce parents' motivation.

The consent process can present additional obstacles. To vaccinate children without guardians present may require written consent if the consent implied by attendance of a mass vaccination event is not sufficient. Students may receive permission slips to collect a signature, but children living away from home, absent during the distribution of the form, or not enrolled in school may miss the opportunity. Parents must be able to understand and respond to permission slips, but the form may be complicated even for literate parents to fill out. They also may question why consent is needed if prior immunizations didn't require it.

Perceived real costs can be a barrier to follow through. Parents and adolescents may associate time or financial costs with getting their child vaccinated, such as missing work to stay with their child, missing school for recovery, having to book an appointment using phone credits or spending excessive time in line. This can lead to procrastination despite willingness to take the vaccine. Negative experiences seeking other health services could also affect willingness to seek out the vaccine.

Opportunity for design: Make it easy and attractive



Make it convenient: Parents and adolescents are more likely to follow through if vaccines are available at convenient places and times and if they feel they have the information they need to act in that moment. An easy consent process also facilitates vaccination.



Make it fun: Fun and visible activities tied to vaccination opportunities can help draw children and adolescents' attention to the behavior of peers and make the vaccine seem more desirable, so that they will be more likely to advocate for their parents' consent.



Various environmental factors can influence how parents and adolescents in any given setting think about the vaccine, make decisions, and act upon them. Individuals may also weigh these considerations differently (consciously or unconsciously) in making their vaccination decision.

Step 3: Develop tailored solutions that address identified drivers

When considering which strategies to adapt to the context, recall the primary audience, relevant decision makers, vaccination process, factors influencing barriers and facilitators to vaccine uptake, and opportunities for design in the setting.

Select and tailor solutions:



<u>Consider promising approaches</u>: The examples in the following pages have been grouped by theme to help adapt ideas to different contexts and barriers. Consider how a combination of approaches might boost impact depending on the barriers and opportunities identified above. For pediatric audiences especially, think about ways to incorporate elements of fun to make solutions more attractive and attention-grabbing.



<u>Leverage key input</u>: Involve parents, adolescents and children, community members, and relevant stakeholders in co-design activities to select and tailor promising approaches to the local context. Consider key implementation channels and partners to make sure ideas will be feasible to implement.

<u>Develop and refine solutions</u>: Co-design draft versions of approaches and materials and share them with other parents, adolescents, and stakeholders to get their feedback on appropriateness and feasibility. This feedback will help improve the ideas and inform final design decisions so the solutions are responsive to the context of the populations of interest.



Co-design and prototyping workshop with university students and parents in Côte d'Ivoire. Photo courtesy of Mamina Herizo, ideas42. See the "Facilitate consent" box and "Social signaling" approach below for descriptions of solutions developed through these activities.



Co-design and prototyping workshop, Côte d'Ivoire. Photo courtesy of Mamina Herizo, ideas42.

Keep implementation in mind when developing solutions:



Facilitate coordination among implementation stakeholders: Effective coordination between the Ministry of Education and Ministry of Health will play a key role in the success of pediatric vaccination campaigns, so engage all stakeholders early in the design process. For example, in Mozambique both Ministries worked together to launch in-person and virtual COVID-19 training workshops and planning sessions involving District Education superintendents, school principals, teachers, school health focal points and other educational leaders. The training sessions provided teachers and school leaders with basic information on COVID-19 vaccines, clarified misconceptions, defined the roles and responsibilities of schools, and highlighted the importance of regular multi-channel communications to students and parents through parent WhatsApp groups, school meetings, newsletters, texts, phone calls, door-to-door outreach, and vaccine caravan events. Following the second round of the vaccination campaign, a total of 4,752,900 adolescents were vaccinated, corresponding to a cumulative coverage of 99%.



<u>Be prepared to adapt</u>: Inconsistent pediatric vaccine supply or short expiry windows may disrupt vaccination campaign plans and require adjusting sites, timelines, and messaging. Take a phased approach to roll-out when possible as eligibility expands to allow for learning from final solution package implementation at a small scale, then refining the solutions before expanding the approaches to other areas. Roll-out of COVID-19 vaccines to children that is not well accepted in an early campaign phase can often harden perceptions and attitudes in future campaign locations, and so continuous learning and adaptation are critical.

Promising approach: Consider delivery contexts



hassles related to cost, location, and time.

- <u>School-based delivery</u>: Administer vaccines directly in schools to maximize
 participation among students. Vaccinators are able to reach a critical mass of students
 in one location, but programs should consider ways to facilitate the consent process
 and to carefully plan the service flow to manage the potential for <u>stress-related</u>
 <u>responses</u> among children. Schools can also be the setting for other integrated
 services delivery; for example, integrating human papillomavirus (HPV) vaccination
 into an adolescent health service and education package delivered through school
 outreach visits has been particularly successful in <u>Tanzania</u>.
- <u>Mobile-based delivery</u>: Engage hard-to-reach families by having Community Health Teams go to residential locations to counsel parents and deliver pediatric vaccines. This approach can also be useful for reaching students who missed school-based delivery (e.g., due to limited enrollment or migration).
- <u>Integrated service delivery</u>: Reduce missed opportunities and normalize COVID-19 vaccination by integrating into standard primary care visits for children or during other health services outreach, consolidating the amount of time/effort/cost that parents need to devote to health-seeking needs. Uptake can improve if national vaccine policy allows for COVID-19 vaccination as a default service, with parents needing to opt out rather than opt in to receive the vaccine. Programs can also promote child vaccination through a standard referral process when parents visit health facilities for other services. <u>This report</u> outlines key programmatic considerations when integrating COVID-19 vaccination into other health services.

Promising approach: Facilitate consent



Support parents to make informed decisions about the vaccine and provide their permission.

- <u>Enhanced consent forms</u>: Ensure consent forms and permission slips((depending on if one or both are needed) instruct parents where they can find easily accessible information if they have questions. The slips should outline steps for completion in a simple and intuitive format. They should include a number to call the Ministry of Health for more information, a QR code (if most parents have access to a smart phone) to scan for helpful links or and/or an invitation to attend an upcoming parent association meeting.
- <u>Alternative opportunities</u>: Schedule school vaccination days to coincide with events parents will often attend in person, such as activity days around holidays. Incorporate micro-incentive elements like a fun wheel (where children get can prizes when they spin a wheel) to draw the attention of children. The visibility of this event might help children convince their parents to give their permission in person, even if they had not given it in advance. Consider leveraging other community events as opportunities to resolve parental concerns and invite their consent.

Promising approach: Engage trusted messengers



Leverage trusted voices to advocate for and build confidence in the vaccine in a way that resonates with parents and adolescents in their local context, through conversation and social influence.

- <u>Peer to peer outreach</u>: Build the vaccine knowledge and communication skills of parents who are active in their communities, so they will encourage their peers to vaccinate their children. This approach creates an informal, safe space for parents to discuss their concerns about vaccines with each other and can be practical for hardto-reach communities such as <u>immigrants and refugees</u>, where language is a barrier for local health workers to provide information.
- <u>Gatekeeper engagement</u>: Engage intended audiences through important gatekeepers, such as traditional and <u>religious leaders</u>, <u>teachers</u>, and <u>health workers</u>, by equipping them in a formal or informal capacity with information and tools to combat vaccine misinformation and distrust, and to introduce new vaccines to the community in situations where such concerns persist. This approach could also be through <u>social media</u> platforms where visible influencers can help to counter misinformation with science-backed messaging about the vaccine.

Promising approach: Encourage a dialogue

Support motivation and resolve concerns with conversation and quality information from a trusted source.

- <u>Parent information sessions</u>: Leverage existing parent association meetings or organize special sessions to create spaces for discussion among peers and with knowledgeable authorities on lingering questions related to vaccines. Parents can build their knowledge and resolve their concerns through the testimonials of health workers and other parents.
- <u>Motivational interviewing</u>: In clinical settings, health workers can use <u>this patient-centered services technique</u> to engage their clients in conversations to increase their motivation and likelihood of vaccine uptake by exploring barriers and drivers for vaccination and providing answers to their client's specific informational needs. Provide health workers with tools to build their communication skills about the vaccine in person or by phone.
- <u>Student engagement</u>: Support teachers to lead a dialogue about the vaccine with fun and <u>engaging materials</u> like comic books, and help adolescents to initiate a conversation about vaccine consent with their parents at home. Leverage new or existing student WhatsApp groups as a counseling platform where health workers can provide accurate vaccine information and students can share with others in their social networks to join.



Waiting Room Activity Booklet for Parents and Their Children in Baltimore, USA

Promising approach: Raise the visibility of peer vaccination



Make vaccinated peers visible to prompt conversations, create opportunities for encouraging others, and reinforce vaccination as a norm.

- <u>Social signaling</u>: Fun and visible activities that leverage gamification (e.g., lottery wheel or target board) can help draw attention to and reward adolescents and children for getting vaccinated. Small prizes, especially wearable ones such as stickers, bracelets and keychains can help to boost the visibility of vaccinated peers and make vaccination more attractive, while helping prompt conversations and generate buzz. Offer a "selfie station" for those who have received a COVID-19 vaccine to snap selfies and share their experience with their friends and family online.
- <u>Community activation</u>: Highly visible community engagement activities, such as <u>caravans</u> sports events, dramas, and road shows help to publicize pediatric vaccination opportunities and to sensitize communities about the importance of the vaccine and how it works. Community health workers could also use this opportunity to prepare parents for when they receive consent forms for in-school vaccination or obtain consent to vaccinate their children directly.



Entertainment Education Caravan in Mozambique where young people received the COVID-19 vaccine.

Promising approach: Explore incentives or mandates



Motivate vaccine uptake by enhancing the perceived benefits of getting vaccinated, reducing hassles, or creating consequences for remaining unvaccinated

- <u>Financial or in-kind incentives</u>: Reward specific behaviors or alleviate financial obstacles by providing parents with monetary incentives or vouchers, such as for transportation, food or medicine, or other <u>non-monetary incentives</u> like household goods. These approaches should only be implemented when vaccine supply is sufficient, and care should be taken to ensure incentives are valuable enough to act as a nudge but not so valuable that they are coercive, undermine other motivations to get the vaccine, or increase distrust.
- <u>Mandates</u>: Institutions such as schools or recreational organizations can motivate students to get vaccinated and their parents to get their children vaccinated. Framing the social benefits of getting vaccinated while introducing new consequences of staying unvaccinated, such as not being able to participate in certain social or educational activities, can help to increase vaccine acceptance. Proving children are vaccinated with routine immunizations may be required in many contexts to attend school; the COVID-19 vaccine could be included as another among those. However, this may also cause resentment or backlash against the vaccine, so programs will need to monitor public reaction to any imposed mandate. Additionally, access and convenience to vaccines are prerequisites for a mandate, so as not to create barriers to education.

Promising approach: Don't forget reminders and nudges



Facilitate plan-making to encourage follow through on vaccination decisions. For example, <u>SMS</u> and <u>phone calls</u> can support compliance with vaccination schedules and are most useful for reminding parents of a second vaccination appointment or overdue status and to help follow-through on next steps.

The behavioral design process helps SBC programs find and apply the most effective solution for the problem at hand. While many potential barriers and facilitators to pediatric COVID-19 vaccine uptake echo those found among adults in various settings, new aspects—such as heightened perceptions of risk and responsibility around children as a vulnerable population, shared decision-making abilities, integrated delivery channels, and additional consent processes—merit fresh thinking on SBC approaches. Considering how features in a person's context can influence their vaccination decision making and actions reveals opportunities for more tailored interventions to increase youth and pediatric uptake of the COVID-19 vaccine.

Key considerations for designing SBC solutions to support pediatric COVID-19 vaccine uptake

Step 1: Identify the vaccination objective and audience members to focus on		
A. Determine the population of focus:		Identify the group of children to focus on
B. Consider the primary and key secondary audiences:		Consider the role of parents and extended family in children's vaccine uptake Consider important influencers on your primary audience that will also likely need to be engaged
C. Identify the steps primary audiences need to take to get vaccinated:		Identify where children can get vaccinated Consider how decision makers learn about the vaccine and steps they need to take Consider specific constraints or objectives
Step 2: Consider the social and behavioral drivers of vaccination hesitancy and uptake		
 A. Identify relevant factors that can act as barriers or facilitators to pediatric vaccine uptake for primary audiences: B. Reframe identified barriers as opportunities for design: 		 Are parents and children concerned about children getting infected with COVID-19 or getting seriously ill? → Highlight the benefits for vaccination Do they have all the information they need related to the risks of COVID-19 infection and the benefits of getting vaccinated? → Facilitate credible information access Do they trust the vaccine works and is safe for children? → Build on established trust Do they have close influencers who have accepted or rejected the vaccine for themselves or their children? → Raise the visibility of vaccination Is the process for getting vaccinated clear and convenient to them? → Make it easy and attractive
Step 3: Develop tailored solutions that address identified drivers		
A. Select and tailor solutions:		Consider promising approaches: → Consider delivery contexts → Facilitate consent → Engage trusted messengers → Encourage a dialogue → Raise the visibility of peer vaccination → Explore incentives or mandates → Don't forget reminders and nudges Leverage key input Develop and refine solutions
B. Keep implementation in mind:		Facilitate coordination among implementation stakeholders Be prepared to adapt and learn