

# THE PARADOX OF CORRECTIVE COMMUNICATIONS: Findings From an MMR Vaccine Awareness Strategy



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## INTRODUCTION

Many vaccination education campaigns intended to curb the growing trend of vaccine hesitancy in the United States have resulted in minimal or even counter-productive outcomes.<sup>1</sup> This might be because many initiatives are grounded in intuition rather than psychological insights.<sup>2</sup> Evidence supports that vaccine communication materials are most effective when they integrate current best practices and insights from the psychological sciences.<sup>2</sup>

Using 2020 best practices outlined by Dubé and colleagues, this poster will describe effective strategies for addressing vaccine hesitancy. It will also highlight these strategies in action through a case study—the SHIFA VR animation project developed by Somali Family Service, a community resettlement and support organization.

## THE SHIFA ANIMATION PROJECT: BACKGROUND AND OBJECTIVES

San Diego is the largest resettlement area for Somali refugees in California, with many having fled civil war.<sup>3</sup> This population experiences barriers to medical access, as well as language barriers, and experiences a lower MMR vaccination rate compared to the national average.<sup>4,5</sup> Focus groups and interviews conducted by Somali Family Service have suggested that some community members have a mistrust of the health care system and of vaccines.<sup>6</sup>

Somali Family Service launched the Somali Health Initiative for Access to Care (SHIFA), a program intended to increase MMR vaccination rates through a narrative-based virtual reality (VR) animation. The animation was developed through strategic insights from the community and focuses on empathetic storytelling. This animation can be viewed using VR headsets at in-person events as well as online as a streaming video. This initiative was developed prior to the COVID-19 pandemic. To ensure safety during the pandemic, deployment will take place using a touchless QR code and disposable cardboard VR goggles.

## VACCINE HESITANCY IS ON A SPECTRUM

Vaccination behaviors are not binary. Instead, vaccine hesitancy is best understood as a spectrum, encompassing complex beliefs, attitudes, and opinions about vaccination.<sup>7</sup>



Figure adapted from Violette, 2019.<sup>7</sup>

Historically, interventions aimed at addressing vaccine hesitancy have been rooted in the idea that decisions to delay or avoid vaccination are due to insufficient information.<sup>2</sup> However, studies suggest that vaccine hesitancy is not strongly associated with a lack of vaccine information, but rather is related to vaccine confidence, which encompasses uncertainty about vaccine effectiveness and safety, as well as a lack of trust in the systems that deliver vaccines.<sup>2,8</sup>



### STRATEGY 1: ESTABLISH TRUST WITH TARGET AUDIENCE

Vaccine hesitancy is associated with various forms of distrust, including distrust of doctors, government, and of pharmaceutical companies.<sup>8</sup> Immunization experts recognize that building and maintaining trust with vaccine-hesitant populations is an important step toward increasing immunization rates.<sup>9</sup>

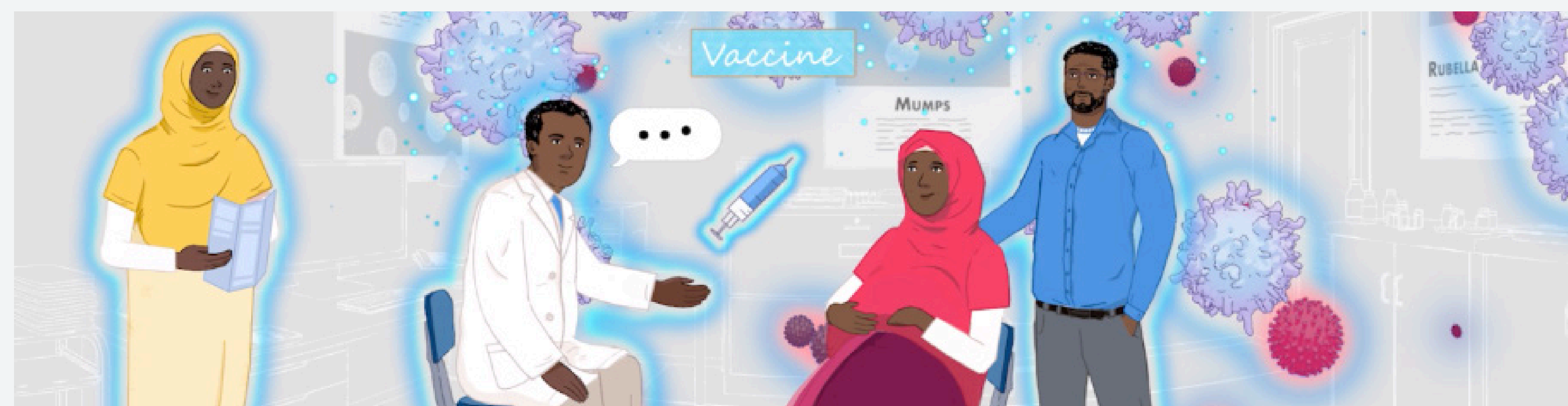
Recommendations include conducting research to gain a deeper understanding of target population groups and monitoring public opinion about vaccination.<sup>10</sup>

#### How the SHIFA project promoted trust

- Conducted community interviews, focus groups, and consultations with trusted community leaders.
- Gathered community insights, values, and beliefs about vaccination.
- Used community insights to guide development of project.
- Provided fair and balanced vaccine information about safety and risks.
- Presented by Somali Family Service, a Somali-focused organization.

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A frame of the SHIFA VR animation.



### STRATEGY 2: APPROACH “MYTH BUSTING” CAREFULLY

Research has demonstrated that attempting to debunk myths can actually have the paradoxical effect of strengthening belief in those same myths.<sup>11</sup> Researchers believe this phenomenon, known as the “backfire effect,” happens due to a cognitive bias that affects memory.<sup>2,12</sup>

Dubé and colleagues suggest avoiding the common technique of headlining or visually emphasizing myths.<sup>12</sup> Instead, a more effective approach is to emphasize the core fact and follow this with information about the myth.<sup>11,12</sup>

#### How the SHIFA project addressed myths

- Avoided emphasizing the myth that vaccines cause autism.
- Presented doctor character sympathizing with main character’s autism concerns.
- Visually focused on vaccination safety facts.

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### STRATEGY 3: USE VISUAL AIDS

Supplementary visual aids can help audiences understand health information.<sup>13</sup> This is especially true of audiences who might experience language barriers or lower levels of literacy or numeracy.<sup>13</sup> Studies have demonstrated that using visual aids can help audiences better understand health risks.<sup>2,14</sup>

#### How the SHIFA project used visuals

- Designed a fully immersive 360° animation experience.
- Used culturally relevant visuals, including characters, settings, clothing, and objects.
- Included eye-catching visuals to help viewers digest scientific information, such as how the immune system works.



### STRATEGY 4: TEST MATERIAL BEFORE RELEASE

Studies have shown that though patients may claim to understand terminology used by doctors, when tested, their understanding is revealed to be incorrect or incomplete.<sup>15</sup>

Immunization experts recommend testing communication products and messages before releasing them to ensure they are working effectively for the target audience.<sup>10</sup> Information should be kept as simple and easy to understand as possible, with health literacy levels in mind.<sup>12,16</sup>

#### How the SHIFA project tested material

- Conducted multiple rounds of review by stakeholders.
- Conducted three rounds of user testing.
- Used feedback from testing to guide animation. Feedback included items such as:
  - **Survey result:** 100% of reviewers said the information was easy to understand
  - **Survey result:** 66% of reviewers said they learned something new from the material
  - **Story suggestion:** Somali mother should visit a Somali doctor
  - **Story suggestion:** Simplify scientific and medical language
- Survey to be included with animation to track audience metrics and guide future initiatives.

## CONCLUSION AND RECOMMENDATIONS

Immunization experts recommend using psychological insights and best practices when designing corrective communication material about vaccination.<sup>2,12</sup> Emphasizing trust-building, carefully educating about myths, designing compelling visuals, and conducting user testing are recommended as effective strategies.<sup>12</sup>