

# Social media-based interventions to increase vaccine uptake

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#### **Effective messaging can target different levers**

Best practice understands that *what* is being said is as important as *how* it is said, and *who* is saying it.

#### Figure 2. Determinants of vaccination behaviours

Vaccination behaviours may be affected by multiple or psychological factors, and may run quite deep.





Attitudes, cognitive biases



Trust, social norms, beliefs, experiences, fears

Moral values, ideology, identity, worldview



## Social media is everywhere

Social media has the potential to drive social and behavior change

#### A Minute on the Internet in 2021

Estimated amount of data created on the internet in one minute



**In one minute on the internet,** people consume information from dozens of sources daily.

Digital media provides public health institutions an **unprecedented opportunity to reach audiences at scale** with effective health communication.



# Digital media can shape health behavior,

But health agencies and public health partners need evidence-based communication strategies to reach people where they are, **online**. <image>

Conocé más

#### UNICEF ad for father-focused campaign in Argentina

"Protect your sons and daughters from diseases like polio and measles by completing their vaccine schedules. Learn more."

## Routine Immunization and COVID-19 Campaigns

Vaccine Acceptance Interventions Laboratory and UNICEF Vaccine Demand Observatory

#### **Partnership Overview**

Collaboration with UNICEF and Meta to develop impactful messages based on evidence and insights

Existing partnership with UNICEF and Meta to develop impactful digital vaccination campaigns

Campaign co-creation with UNICEF HQ, UNICEF country offices, and Public Good Projects (PGP)



2020-2021 work with COVID-19 highlighted opportunity to leverage the strengths of each partner

Countries need support to restore routine immunization (RI) coverage and maintain trust in vaccines since COVID-19

### **Evaluation for impact**

Meta Brand lift studies (BLS) rely on experimental design to understand which digital campaigns resonate most.



#### Learning from a Brand Lift Study

Optimizing content for impact

Highest performing campaigns in terms of Brand Lift Survey

Highest performing ads within campaigns based on Facebook Ad Metrics

> A results-based, contextdriven messaging strategy optimized for impact.

#### Where we work



#### **Context Drives Design**

Campaigns target levers for change, based on detailed insights



## **Multiple Rounds of Iteration**

In eight countries supported for routine immunization messaging

	Countries	<b>Reach</b> (how many users reached)	Impressions (how many times ads seen)	<b>Frequency</b> (Impressions /Reach)	<b>Clicks</b> (Unique)	Campaigns Tested	Investment (USD)	Cost per Reach   Cost per Click (USD)
Round 1	8	498,944,964	2,103,688,700	4.22	5,141,595	18	1,310,000	0.0026 0.24
Round 2	2	298,486,776	1,309,851,176	4.41	3,302,297	7	597,000	0.0020 0.18
Round 3	2	211,964,178	649,622,411	3.06	2,195,548	5	400,000	0.0019 0.18
TOTAL	8	1,007,655,188	4,063,162,287	4.03	10,912,440	30	2,307,000	0.0023 0.21

### **Outputs from Test Campaigns**

Strategic digital communications launched via UNICEF in eight countries



#### **4B Impressions** Ads seen an average of four times per user across campaigns



**Significant Reach** Average reach per test – 76M

18M – 226M users in-country



**11.08M Clicks** for additional vaccination resources

#### **Learning from Scale**



**High Recall of Ads** comparable to market tests for consumer goods/services



**Positive Shifts** in attitudes towards vaccines, including importance



**Cost-Effective** Each click cost cents of ad credits to move the needle

# **Regional Targeting Key for Specificity**

Different ads resonated in different areas, which were unique in their RI coverage, rates, and geography



In northern Nigeria, ads that featured **parents with children** performed best in clicks, reach, and impressions



In southern Nigeria, ads that featured **healthcare workers and families** performed best in clicks, reach, and impressions

# Reels content shows promise for message lift.

Reels in Argentina that highlighted a **sports celebrity** (father-focused campaign), **local parenting influencers**, and **everyday kids** were highly recalled and created lift.



## **Reels showed lift in recall and attitudes**

In Argentina, reels content was successful in shifting routine immunization attitudes

	Influencer Reels (Manu Ginobili with expert)	Father-Focused Campaign (featuring Manu Ginobili Reel)	Parenting Influencers (Reels)	How Vaccines Work (Kids Reels)		
Recall						
Ciudad Autónoma de Buenos Aires	3.0*	2.3^	2.4*	2.6*		
Prioritized Provinces	1.7^	2.4^	ns	5.1*		
Attitude toward Vaccines						
Ciudad Autónoma de Buenos Aires	1.7^	ns	1.6*	ns		
Prioritized Provinces	ns	ns	1.3^	1.2^		
Importance of Vaccines						
Ciudad Autónoma de Buenos Aires	ns	ns	ns	ns		
Prioritized Provinces	2.7*	2.4*	1.4^	ns		
Self-Efficacy						
Ciudad Autónoma de Buenos Aires	-	2.0*	ns	1.1^		
Prioritized Provinces	-	ns	1.3^	1.2^		

\*90% confidence in lift | ^80% confidence in lift. | Ciudad Autónoma de Buenos Aires (Buenos Aires) is the capital of Argentina.

# Targeted messages based on gender shifted specific audiences

Important to target both mothers and fathers with tailored content for RI demand



Father-focused campaign in Argentina



Female-focused campaign in Pakistan

# In Argentina, a father-focused campaign lifted vaccine importance and self-efficacy

Areas prioritized for RI catch-up had significant lift among male target audience

Father-Focused Campaign	Ciudad Autónoma de Buenos Aires	Prioritized Provinces
<b>Self-Efficacy:</b> If you have children, how much do you agree with the statement: "I have the <b>ability</b> to protect my child from diseases through vaccination"	Males: 3.0* Males 25-34: 5.5*	NS
Vaccine Importance: How important is it for parents to get their children vaccinated against preventable diseases, like polio or measles?	NS	Males: 3.2* Males 18-24: 4.6* Males 25-34: 4.3*

# Female-focused campaigns lifted RI outcomes among women in hard-to-reach areas

Female-Focused Campaign	Balochistan and KP	Sindh	Punjab and Islamabad Capital Territory
<b>Recall:</b> Do you <b>remember</b> seeing a post about routine immunizations from EPI online or on a mobile device over the past 2 days?	Females: 8.9* Females 18-24: 9.8* Females 25-34: 7.9* Females 35-44: 8.8*	Females: 9.1* Females 18-24: 6.4* Females 24-35: 12.2* Females 35-44: 9.1*	Females: 7.9* Females 18-24: 5.8^ Females 25-34: 9.1* Females 35-44: 12.3*
Vaccine Importance: How important is it for parents to get their children vaccinated against preventable diseases, like polio or measles?	Females: 3.1* Females 25-34: 3.6* Females 35-44: 5.0* Females 45-54: 6.0*	Females: 2.0* Females 25-34: 3.2^ Females 45-54: 3.5^	Females: 1.7^ Females 35-44: 3.1^
<b>Self-Efficacy:</b> How much do you agree with this statement: "I know how to protect children from diseases like pneumonia and measles through vaccination.	Females: 2.5* Females 25-34: 2.5^ Females 35-44: 4.8*	Females 25-34: 2.7^	Females; 1.9^ Females 25-34: 2.4^
<b>Attitude:</b> I would describe my attitudes towards children receiving childhood immunization as: Positive	Females: 3.0* Females 25-34: 3.3^ Females 35-44: 4.9*	ns	Females: 1.9 <sup>^</sup> Females 25-34: 2.3 <sup>^</sup>



For digital messaging campaigns to drive routine vaccination uptake

8 countries prioritized for Routine Immunization Demand Activities

28 campaigns designed, launched and tested with 100+ ads

Ad credits given to run tests from UNICEF COs and partners

Tens of millions of Facebook users reached with strategic messaging content



#### **High vs. low hesitancy parents**



21 Amin et al. Nature Hum. Behav., 2017

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#### **Purity Violation-based Pilot Intervention**



A total of **1504** parents with a child under age 12 were included in an **online survey experiment.** 

Half of the respondents saw a purity-based message in a UNICEF post encouraging parents to vaccinate to keep kids **"free from disgusting diseases like polio and measles".** The other half did not see the post.

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#### Intervention

UNICEF ad post shown to intervention group

"It is important to vaccinate your children following the schedule to keep them free from disgusting diseases like polio and measles."

Es importante vacunar a tus hijos/as según el calendario, para mantenerlos libres de enfermedades desagradables como la polio y el sarampión.

unicef @

### **Overall Effect of Intervention on VTI Score**

Compared between control and intervention groups



The **intervention** group had on average a **higher score (0.35 points) on the VTI** compared to the control group

Sample size: **1504** Coefficient (95% CI): **0.35 (0.2-0.5)** P-value: <**0.001** 

For control group: Mean VTI Score (SD): 7.8 (1.9) For intervention group: Mean VTI Score (SD): 8.2 (1.9)

#### **Digital Media for Health Outcomes**

Strengthening capacity for digital health communications

## **Digital Media for Health Outcomes**

A course to design and develop impactful health communications *online*, to make a difference *offline* 



A **comprehensive** and **evidence-based tutorial** on the key tactical steps to **develop and implement successful health campaigns** on social media, and to **evaluate their performance and impact** on health behavior.

By the end of the course, students will be able to **implement a digital communication strategy with actionable campaign objectives and evaluate its impact**.

## A consortium of world-class partners

Convened to design, develop, and disseminate the online course via Coursera



Yale Institute for Global Health Yale Poorvu Center for Teaching and Learning

Module 1: Behavioral Insights As A Foundation

Module 3: Designing For Context – Messaging & Creative That Resonates

Module 2:

Crafting Your

Communication

Strategy

Module 4: Tactics for Digital Media and Campaign Implementation Module 5: Metrics That Matter -Understanding Impact

#### **Course Overview**

## **On Coursera, in nine languages**

Designed to be accessible and available to as many learners as possible around the world



Vale

Course launched on May 19, 2023

Instructor: Saad Omer

Launched

Launched

Launched



Medios digitales para resultados sanitarios Instructor: Saad Omer

**Digital Media for Health Outcomes, English** 

Course launched on May 19, 2023



Les médias numériques pour améliorer les résultats de santé Instructor: Saad Omer

Course launched on May 19, 2023



استخدام الوسائط الرقمية لتعزيز النتائج الصحية Instructor: Saad Omer



Launched

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Цифровые медиа в сфере здравоохранения Instructor: Saad Omer





Course launched on Sep 5, 2023



借助数字媒体实现卫生成果 Instructor: Saad Omer

Launched Course launched on Sep 5, 2023

Media Digital untuk Hasil Kesehatan Instructor: Saad Omer

Launched Course launched on Sep 5, 2023

Launched



Vale

Vyombo vya Habari Dijitali kwa Matokeo ya Afya Instructor: Saad Omer

Course launched on Sep 5, 2023

Our course has reached over 50,000 unique visitors, enrolled more than 11,000 learners.

Launched



#### **Public Cohort**

Demographics, Feedback, and Insights so far

## Feedback is positive so far

#### Reviews average 5 stars

#### $\textcircled{\Rightarrow} \textcircled{\Rightarrow} \textcircled{\Rightarrow} \textcircled{\Rightarrow} \textcircled{\Rightarrow} By Mahesh P B \cdot Jun 22, 2023$

The course was a fantastic experience as the content was crisp, the audiovisual experience was good, and the faculty was excellent.

#### 

This course had a lot of great and useful information and Dr. Saad Omer was really amazing!

#### 4

This exciting cause has opened my eyes to the important role Digital Media plays in Health outcomes. I needed to be up to date with using digital media for behavior change, and this course helped me accomplish that goal. Thanks Coursera. This is awesome.

#### 4 4 4 4 By Roseline C A • Jun 26, 2023

This course exceeded my expectations. I particularly loved the applied exercises embedded in each module. Kudos to the organisers, and thank you.

### Join our community

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DMHO Community of Practice Facebook Group

Monthly meet-ups, partner spotlights, best practices, and latest innovations – 600+ members

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DMHO Cohort Connect WhatsApp group

Stay in touch with 100+ course colleagues and global health practitioners for realtime updates in the digital media space



#### **Vaccine Demand Interventions**

Guides and Messaging

#### VACCINE MISINFORMATION MANAGEMENT FIELD GUIDE

Guidance for addressing a global infodemic and fostering demand for immunization

LISTEN | UNDERSTAND | ENGAGE



Vaccine Messaging Guide

DECEMBER 2020

FACEBOOK

Institute for Global Health



#### **Thank You!**



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Work supported by Meta, Inc.