

Webinar Series



Health Literacy
Solutions Center





Using Fotonovelas to Build Knowledge

Rena Brar Prayaga
Mel Morales
mPulse Mobile

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About the Speakers



Rena Brar Prayaga

Behavioral Data Scientist
Advisor for mPulse Mobile



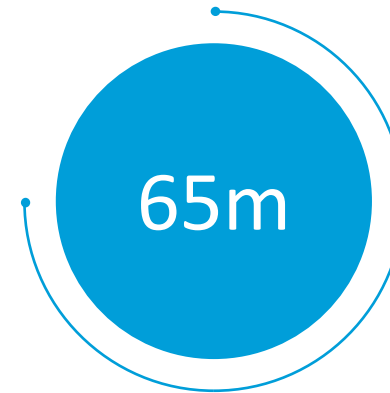
Melissa Morales

Strategic Account Director
mPulse Mobile

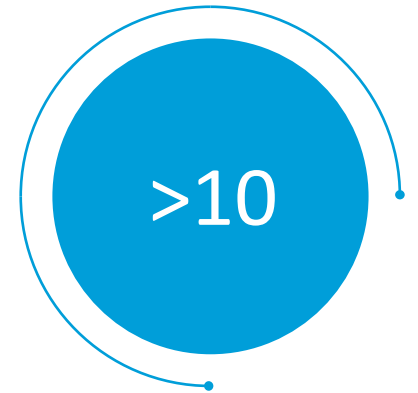
100+ Healthcare Customers Trust mPulse



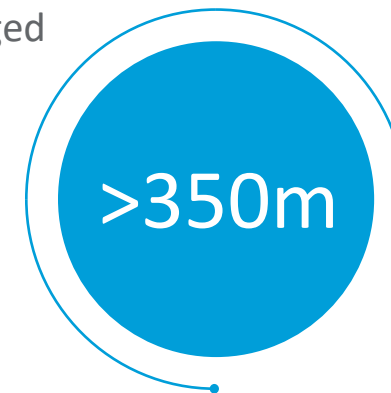
UPMC HEALTH PLAN



US Healthcare
Consumers Engaged



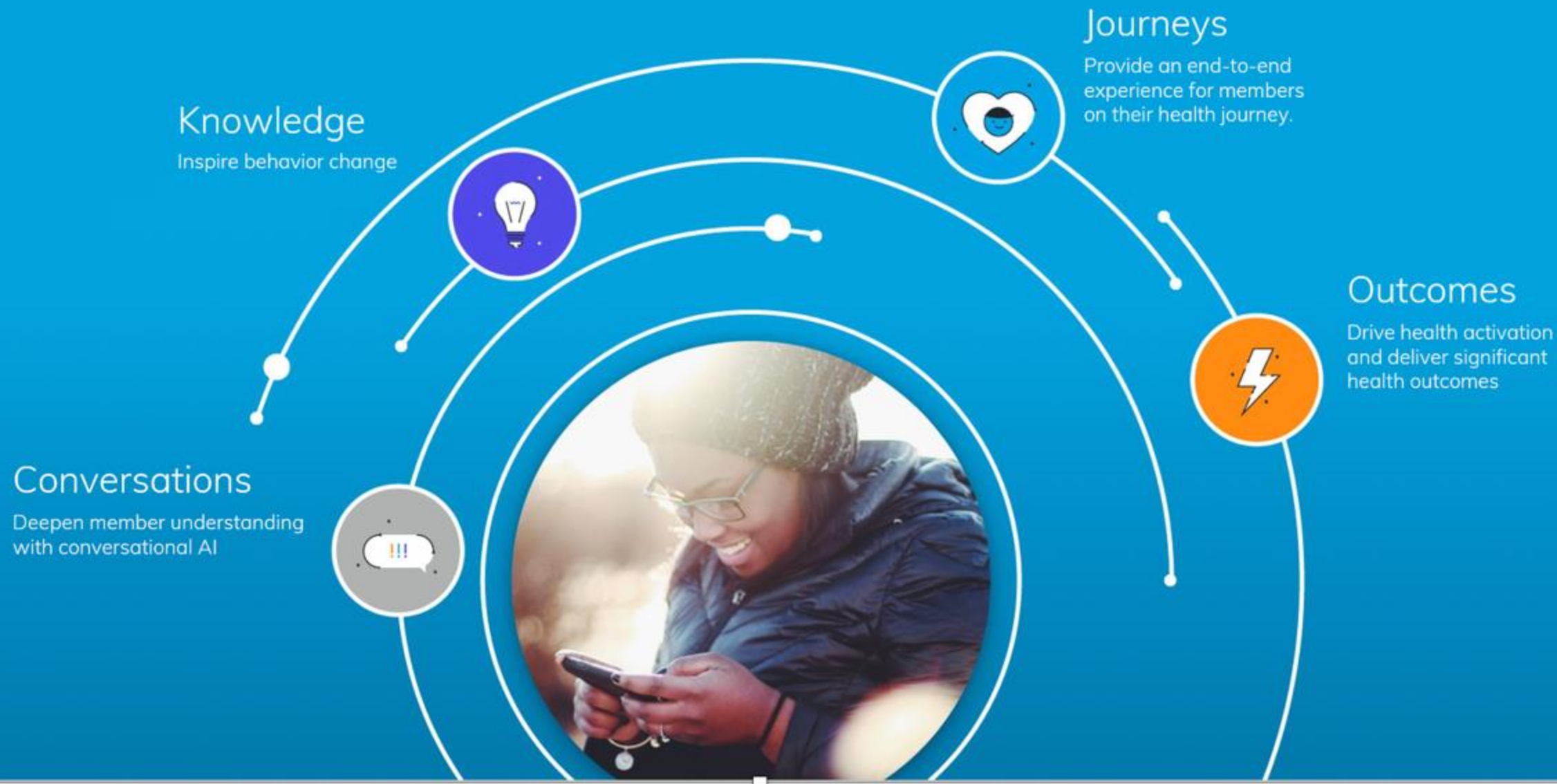
Years Experience



Automated Conversations
Annually



Reimagining Health Engagement





What We Will Cover

- Health literacy and health beliefs
- What are mobile fotonovelas and why are they relevant?
- Several examples of mobile fotonovelas
- Fotonovela engagement levels
- How to deploy them and what works

Path Health said:

Hi Jane, your health is important, and we want to make sure you are getting enough interaction during Safer at Home. Click here to see ways how other people are managing during this [time mp0.co/SaferAtHome](https://time.mp0.co/SaferAtHome)

Path Health said:

Hi Jane, we hope the story about Safer at Home useful. Let us know what you thought of it.
Reply from 1 (Very Dissatisfied) to 5 (Very Satisfied)

You said:

1. I enjoyed it a lot

Path Health said:

Thank you. That's great to hear.





Impact of Lower Health Literacy

patients with low
HEALTH LITERACY...



Are more
likely to visit an
**EMERGENCY
ROOM**



Have more
**HOSPITAL
STAYS**



Are less
likely to follow
**TREATMENT
PLANS**



Have higher
**MORTALITY
RATES**



New Health Literacy Definitions

The U.S. Department of Health and Human Services (HHS) addresses both personal health literacy and organizational health literacy in their **new Healthy People 2030 definitions**.

This shift acknowledges that health literacy is a public health challenge and **emphasizes the role and responsibility of society** in providing individuals with accessible, comprehensible and usable information.

Old vs. New Definitions



OLD DEFINITION (personal)

Health literacy is the degree to which individuals have the capacity to obtain, process, and understand basic health information and services needed to make appropriate health decisions.

NEW DEFINITION (personal + organizational)

- **Personal health literacy** is the degree to which individuals have the ability to find, understand, and use information and services to inform health-related decisions and actions for themselves and others.
- **Organizational health literacy** is the degree to which organizations equitably enable individuals to find, understand, and use information and services to inform health-related decisions and actions for themselves and others.

<https://health.gov/our-work/healthy-people/healthy-people-2030/health-literacy-healthy-people-2030>

https://journals.lww.com/jphmp/Abstract/9000/Updating_Health_Literacy_for_Healthy_People_2030_.99188.aspx

Santana, Stephanie MPH; Brach, Cindy MPP; Harris, Linda PhD; Ochiai, Emmeline MPH; Blakey, Carter BA; Bevington, Frances MA; Kleinman, Dushanka DDS, MScD; Pronk, Nico PhD, MA, FASCM, FAWHP Updating Health Literacy for Healthy People 2030, *Journal of Public Health Management and Practice*: March 12, 2021 doi: 10.1097/PHH.0000000000001324



Reframing Health Literacy

While the earlier definition of health literacy was more concerned with obtaining information, the new definition focuses on well-informed use of this information and organizations must facilitate this process:

- emphasize people's ability to **use health information** rather than just understand it.
- focus on the ability to make “**well-informed**” **decisions** rather than “appropriate” ones.
- incorporate a **public health perspective**.
- acknowledge that **organizations have a responsibility to address health literacy in an equitable manner.**

Adding Visual Elements for Understanding & Use



Communicate in ways that **avoid blame for lack of understanding** or incomplete knowledge.

Understand that **information might need to be layered** in order to provide more clarity and reinforcement and to prevent misunderstandings.

Acknowledge that patients and health plan members **may be embarrassed to ask questions**, especially on sensitive or emotionally charged topics.

Recognize that **health beliefs and cultural beliefs influence health behaviors** and uncovering these beliefs will help inform and tailor communication strategies.

Using a visual storytelling format with actionable content can provide a lighter approach to health communication while building health literacy, addressing health beliefs, and nudging patients and members to be more proactive about their health.



Mobile Fotonovelas



Using Mobile Fotonovelas

- What are mobile fotonovelas?
- Why this is relevant right now
- A few examples





What are fotonovelas?

Fotonovelas are **visual stories** used to quickly **build knowledge** and **influence health behaviors**.

They also introduce **positive role models** in a way that is **culturally and linguistically relevant**.

Traditional print fotonovelas have been used to improve knowledge and health awareness¹ (e.g., role of HPV vaccines) and to encourage healthy behaviors² (e.g., diabetes self-management).

¹<https://www.ncbi.nlm.nih.gov/pubmed/26514184>

²<https://www.ncbi.nlm.nih.gov/pubmed/28094559>

Existing research using (print) fotonovelas



USC School of Pharmacy

Home > Increasing Health Literacy with Fotonovelas

Increasing Health Literacy with Fotonovelas

The popular USC School of Pharmacy fotonovela series combines health information with dramatic storytelling and photography. Published in both Spanish and English, more than half a million booklets have been distributed at safety-net clinics, health fairs, pharmacies and other locations to date, providing information to at-risk populations in a culturally sensitive way.

These health education tools fill crucial knowledge gaps, conveying information in a way that encourages behavioral changes.





What are mobile fotonovelas?

Mobile fotonovelas are **digital stories viewed on a mobile phone**. Users click on a link in a text message and scroll through 6-8 frames to follow the story.

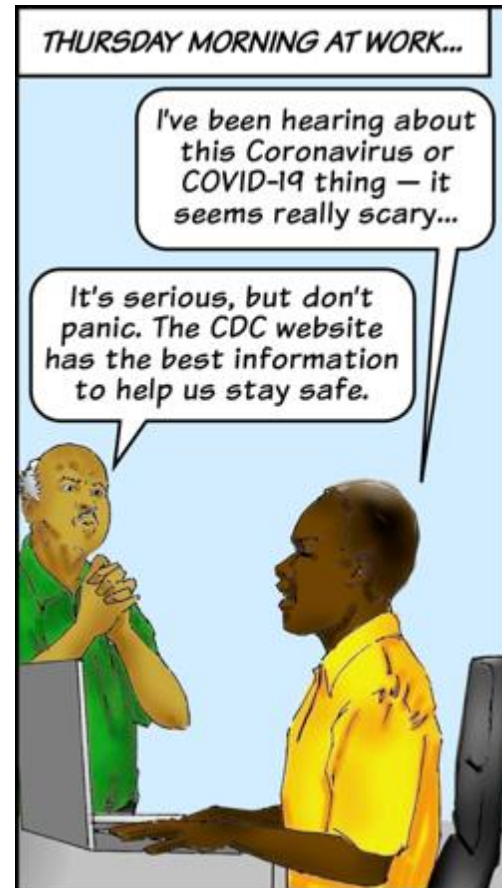
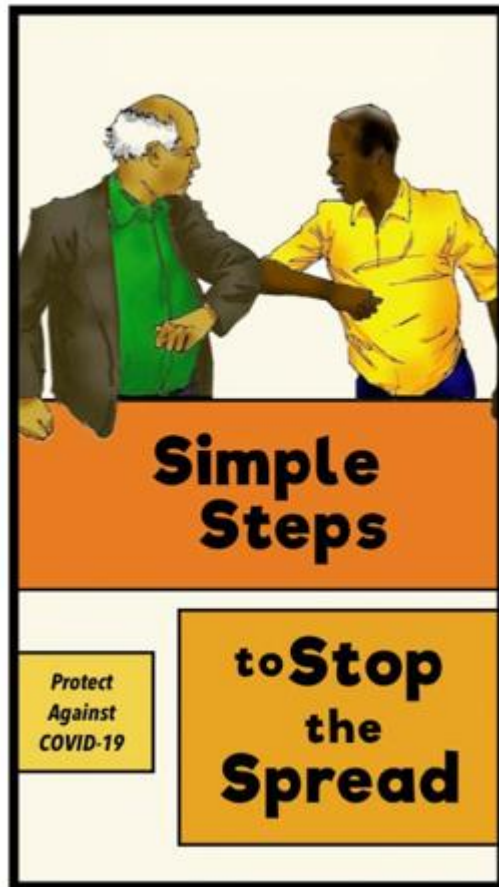
The storyline typically **builds knowledge** and **addresses health beliefs, myths and fears** related to specific health visits.

These types of mobile stories can be used to educate users about the value and appropriate use of health resources (nurse line, urgent care, telehealth, ED, etc.), and to nudge users to access these resources (flu shots, cancer screenings, wellness visits, etc.).

The **layering of visual and text reduces cognitive effort** and makes it easier to process new information. Results and feedback from several outreach efforts suggest that older users are just as likely to enjoy a mobile fotonovela.

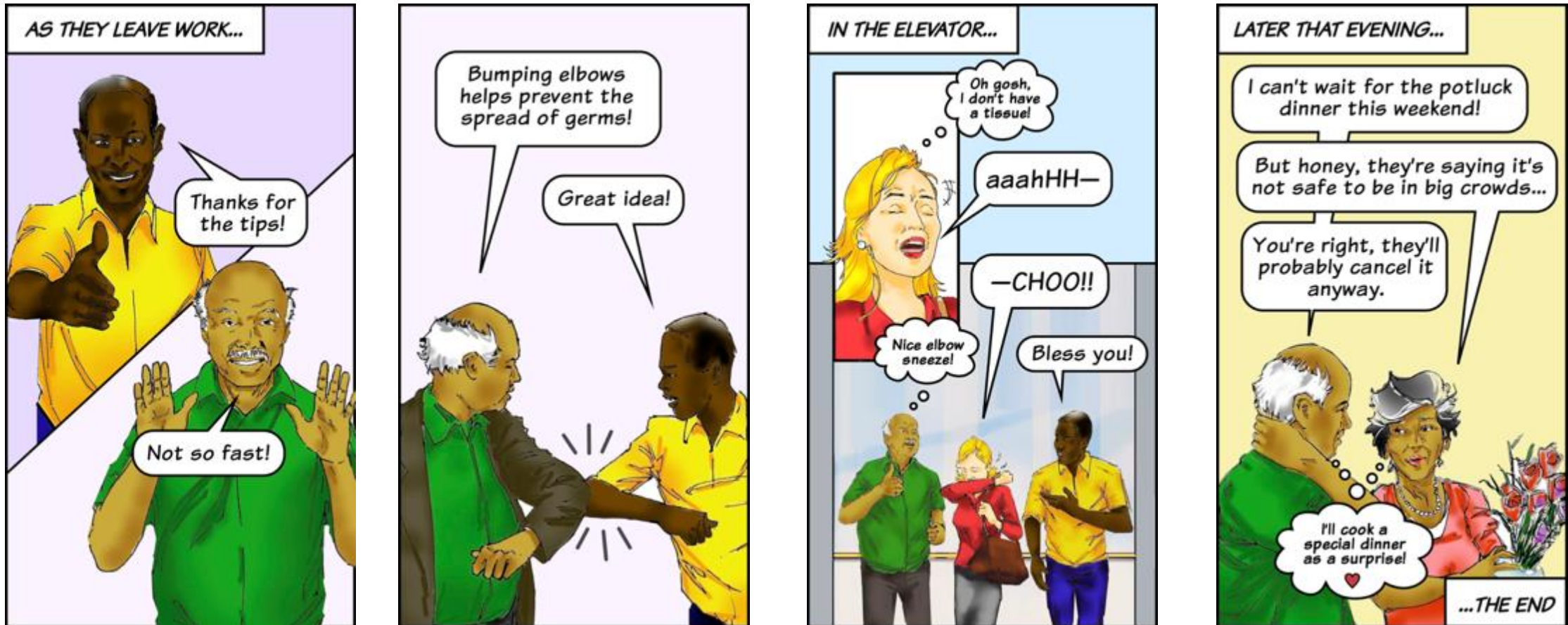
Building health literacy relating to COVID-19

Developed in March 2020 and focusing on hand washing and hygiene.



Health literacy and the pandemic

Educating health plan members about simple ways to stop the spread of COVID-19.

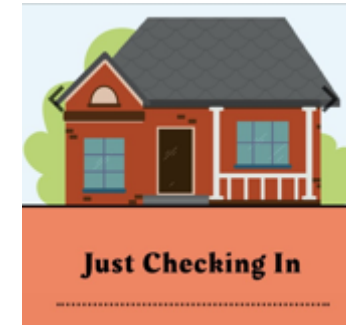
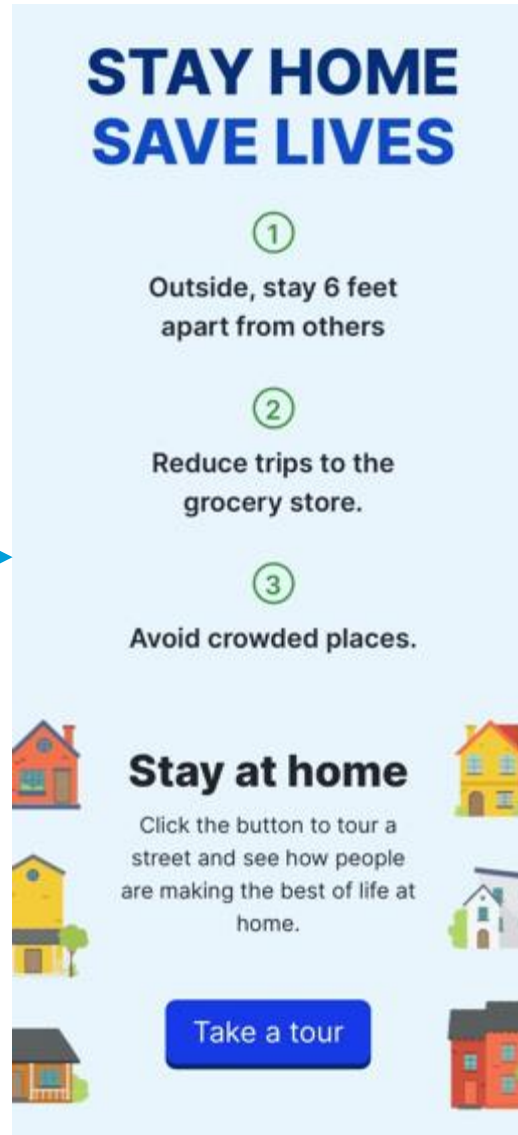


Helping combat social isolation

Developed in May 2020 during the stay-at-home phase of the pandemic.

Hi, this is #Health Plan#. Here's a fun story with ideas to help you cope while staying at home.
Click the link to see more.
<link to *fotonovela*>

The 6 stories are connected in a single fotonovela and members can click and scroll to move from one house to the next.



Encouraging behaviors to stay healthy and positive



Cooking together and trying new recipes.



Chances are you'll be cooking more at home these days. Here are a few tips:

- Try new recipes you don't usually have time for
- Cook more food each time so you have leftovers for the next day
- Turn cooking and clean-up into a family activity

[Visit the next house](#)

Encouraging behaviors to stay healthy and positive



Completing interesting projects.



Take advantage of time at home to fix that kitchen cabinet... and add something for the dog!

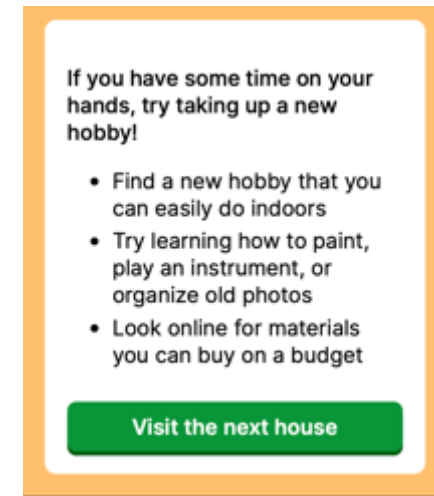
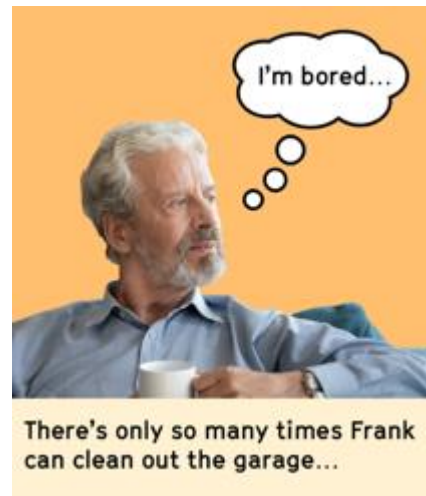
- Find a new hobby that you can easily do indoors
- Try learning how to paint, play an instrument, or speak a new language
- Look online for materials you can buy on a budget

[Visit the next house](#)

Encouraging behaviors to stay healthy and positive



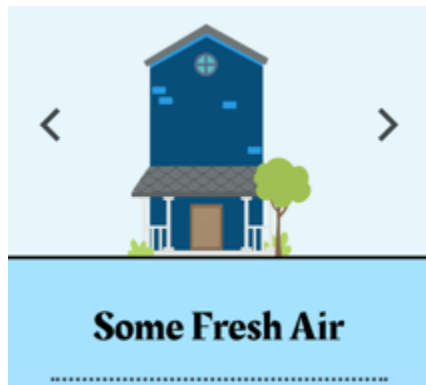
Developing new hobbies.



Encouraging behaviors to stay healthy and positive



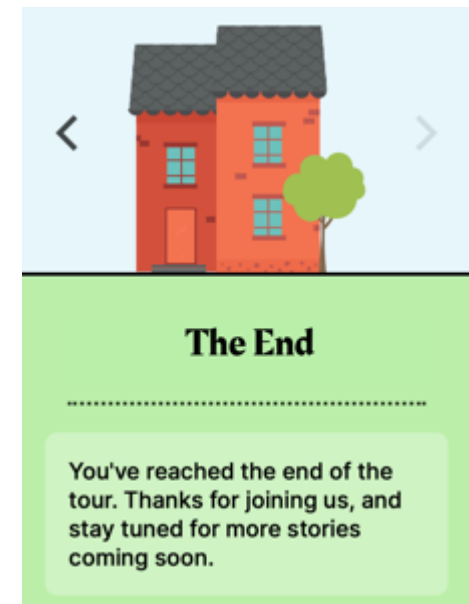
Staying active while being safe.



If you're able to go outside and get some fresh air, exercise can help lower stress and improve overall health.

- Go for a walk, run, or bike ride alone or with your family
- Avoid crowded areas whenever possible and keep a distance of at least 6 feet from others
- Use a mask or face covering to avoid the spread of the virus

Finish the tour



Developed in October 2020 to help patients reach providers from home.

Using telehealth and e-visits



Using telehealth and e-visits



COVID-19 vaccine outreach



Developed in March 2021 to build trust, address barriers, and influence beliefs about COVID vaccine(s).

Hi, this is #HealthPlan#. Here's a fun story about the COVID-19 vaccine and why you should get one soon to protect yourself and others.

Click the link to see more. <link to fotonovela>

click on link



COVID-19 vaccine outreach

Highlighting benefits of the vaccine.



Fotonovela feedback



Hope that was helpful. Text back your thoughts:

- 1 – Loved it!
- 2 -- Liked it
- 3 – It was okay
- 4 – Didn't like it

*any
response*

Do you have a story you'd like to share? We'd love to know how our members are managing while staying at home.

any response

Thanks for letting us know.

Stay home and keep yourself and others safe!

2 hours after initial message

Hi, this is #Health Plan# again – Here is the link to get the latest updates from the CDC about what you need to do. <link to CDC.gov>

And remember that your PCP is here for you if you feel any signs of the virus.

Fotonovela engagement levels



COVID-19

82%

Liked or loved the
experience

Social isolation

80%

Liked or loved the
experience

E-Visits

85%

Liked or loved the
experience

Vaccines

72%

Liked or loved the
experience



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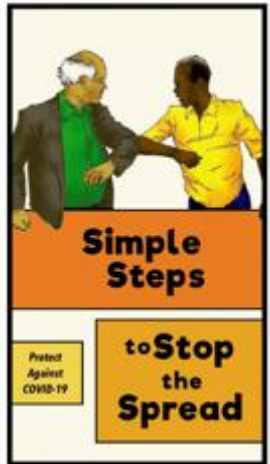
Fotonovela
Performance





Fotonovela 1 (March/April 2020)

Goal was to raise awareness about COVID-19 and how simple steps could help stop the spread.



- 144k Medicaid members targeted
- **Engagement rates were higher than usual** at 14% (typically 5-10%)
- **Opt-out rates were extremely low** at 0.5% (usually 1-3%).
- 32% of those who viewed fotonovela responded to follow-up survey
- **82% loved or liked it**

A few sample responses

Like it. Good efforts

Loved it, Thank You

Me encantó 🙏

Scared and terrified because of my COPD

Thank you for sharing with me God bless you 🙏

Where can i get tested for COVID 19

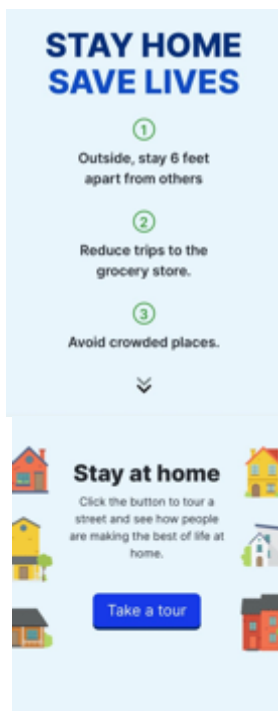
Yes. We need all the help we can get in such terrible, confusing times.

The platform's conversational AI and natural language understanding (NLU) allowed us to respond to many of these messages with automated content providing links to CDC and plan resources and flagging when appropriate for human follow-up.



Fotonovela 2 (May/June 2020)

Goal was to combat social isolation and to provide ways to stay healthy and positive.



- 85k Medicaid and Medicare targeted with large % of disabled members
- 36% of those who viewed fotonovela responded to follow-up survey
- 80.2% loved or liked it
- Spanish speakers were 1.6 times more likely to click on the fotonovela link.
- Medicare (65+ and/or disabled) engaged at significantly higher rates of 14.8% compared to usual engagement rates (<8%).

Do you have a story you'd like to share? We'd love to know how our members are managing while staying at home.

A few sample responses

1 love it! We are practicing all those things feels great to get on a routine and get projects done! My yard looks fantastic!

I'm coping by writing star wars fan-fiction

I work a lot of word puzzles crossword cryptograms those are like breaking codes reading a lot

I'm doing more cooking an also baking with my 3 year old...

I'm doing my groceries every two weeks, cooking meals fo the family, taking care of my grandkid, watering plants in the garden, during free hours...

I'm reading the 5th book if an 8 book series called Dark Tower, by Stephen King. I started it in March.

I'm a handy man and staying home gave me a chance to do a landscape in my backyard

It was inspiring and gives people ideas on keeping busy doing productive things

Fotonovela 3 (Dec 2020)

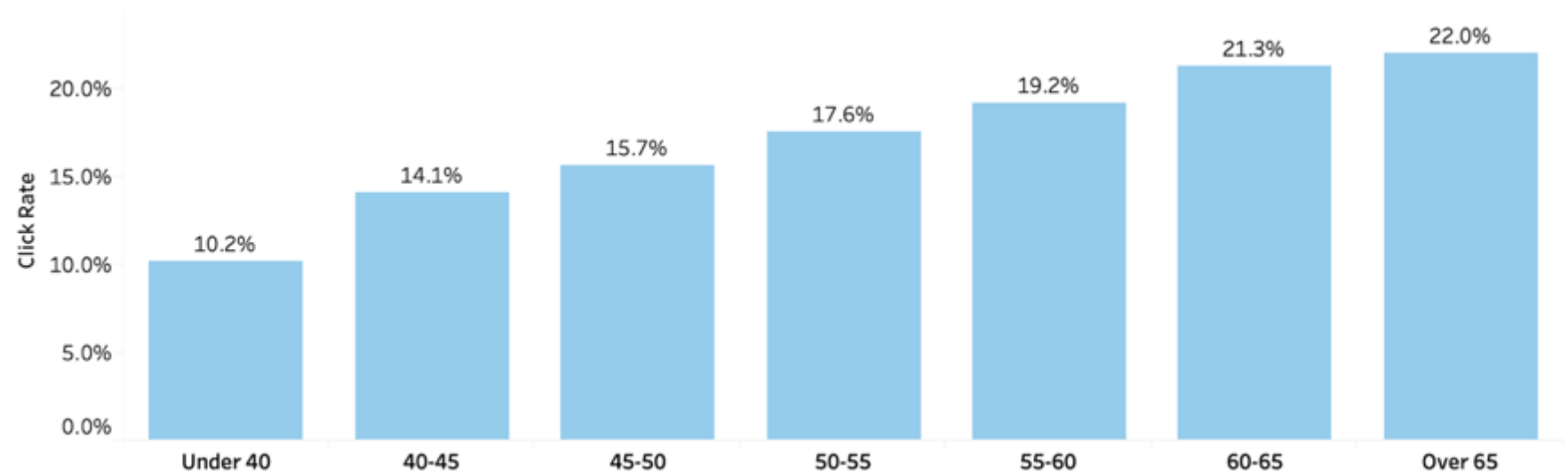


Goal was to provide information about how to use telehealth and e-visits to stay healthy during the pandemic.

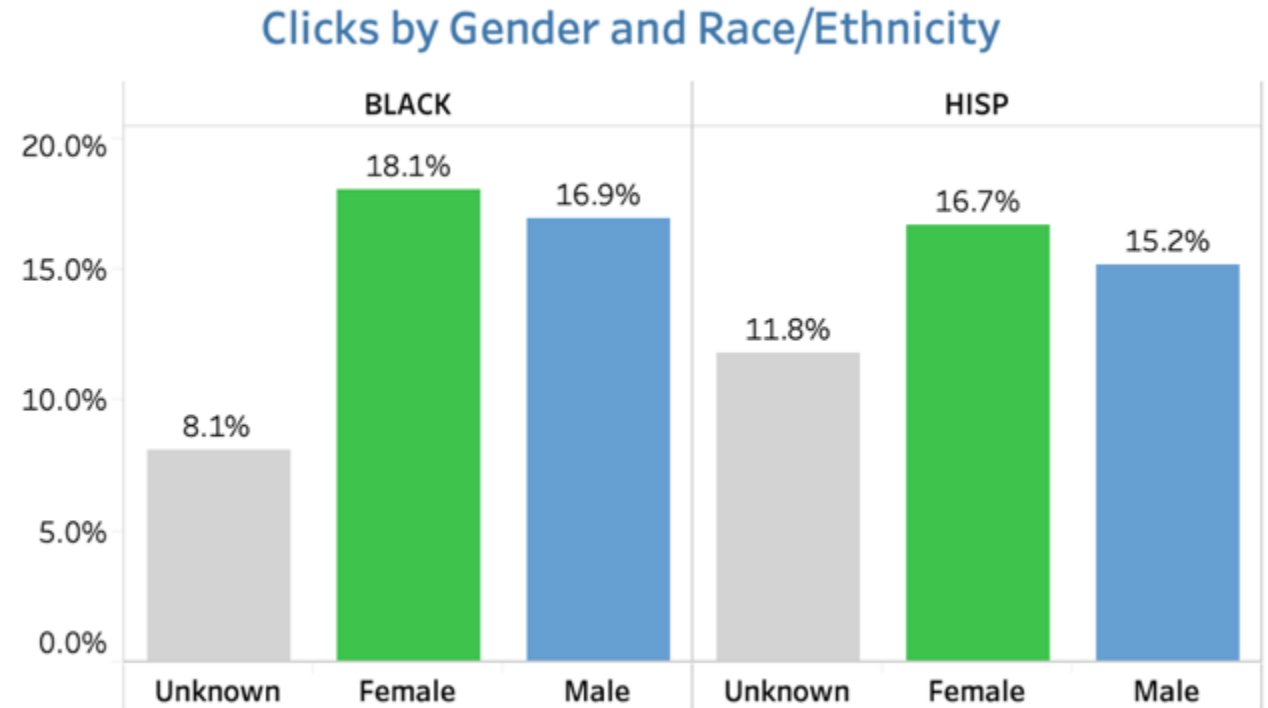
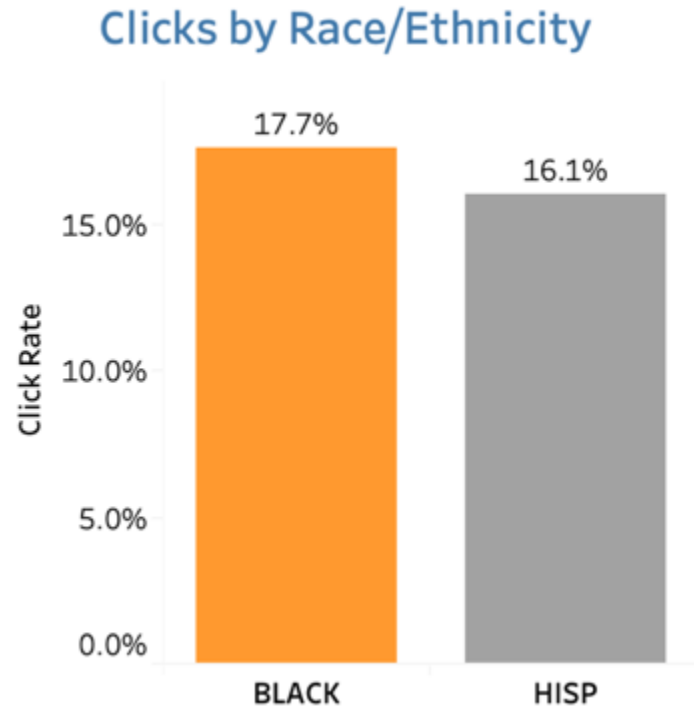


The e-visit outreach was piloted with Hispanic (84.6%) and Black (15.4%) health plan members across 5 regions in the country. Total target population of 522k members.

Fotonovela clicks and views among older members (65+) were more than twice as high (22%) when compared to younger members (<40) with a click rate of 10.2%.



E-visits – clicks to fotonovela by gender and race



Click rates among Blacks (17.7%) were higher than Hispanics (16.1%) and females clicked at higher rates across race/ethnicity.

Fotonovelas and e-visits – a few insights



Members across age, gender, region and race/ethnicity responded positively to the fotonovela, suggesting that fotonovelas relating to telehealth and e-visits are an effective way to share information and model healthy behaviors.

Individuals most likely to click on the fotonovela link or the e-visit link were 60+, female, Black and in Southern CA (click rate was extremely high at 26.8%).

This is an interesting insight since it suggests that fotonovelas (despite their origin in Latin America) are appealing to other (non-Hispanic) ethnic groups. It also suggests that older members are very interested in (and capable of) clicking on links to access useful information relating to e-visits.



Were they more likely to try an e-visit?

After learning about an e-visit, do you think you're more likely to try an e-visit in the next few months?

6,657 members answered this question after viewing the fotonovela and the themes in their replies are shown here.

Absolutely, will give it a try

*Absolutely!
I'm scared to go to a
hospital or clinic right
now.*

*Absolutely! I prefer
not to have a face to
face visit even if not
in Covid times. It's
very convenient!*

Seems easy to use

*Sure, it seems pretty
easy to use.*

Yes, I will in the next few months

*Yes for now during
the pandemic*

*Yes I think I do like to
try in the next few
months*

More likely to try one now

*Yes, I will be more
likely to try an e-visit.*

Already use e-visits

*I already used the e-
visit. Loved it.*

I don't know....

*I don't know much
about this stuff but I
will try*

*I don't know I will see
when the time comes.*

Depends on my health issue

*Depends on my
health problem.*

*Depends on how sick I am
feeling. If I believe I need to be
evaluated in person by a
doctor so they can check my
vital signs or not.*

No, I'd prefer a real person

*No. Would rather talk
to a real person.*

Hope I won't need it

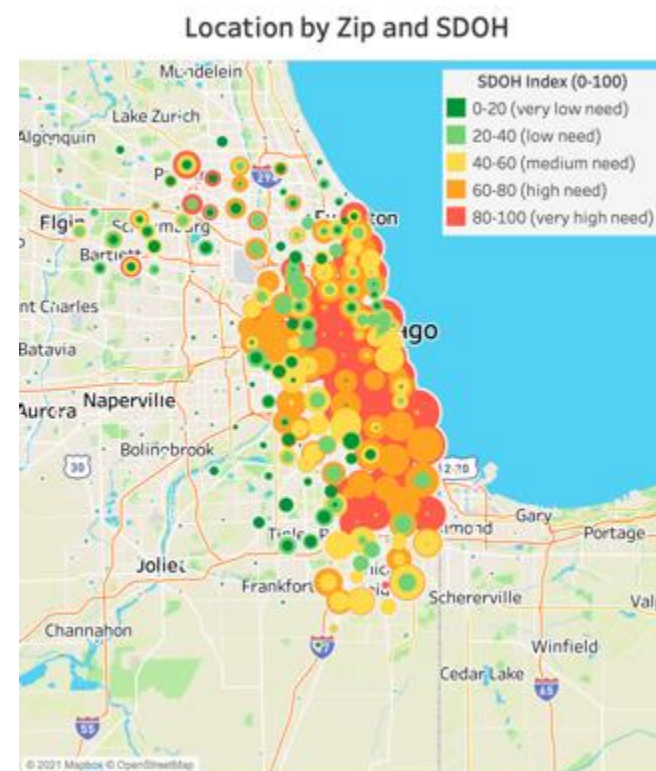
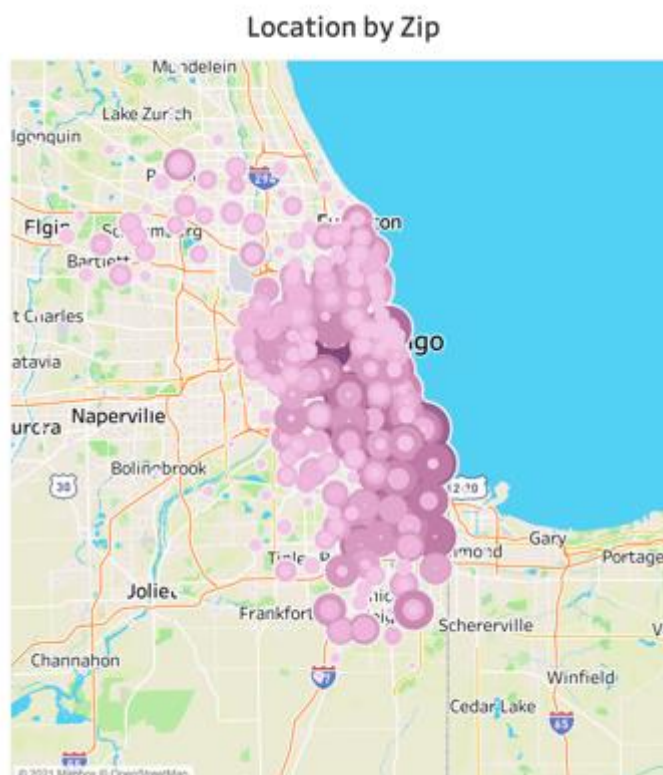
*Hope I won't need it
but it is good to have*

Fotonovela 4 (April 2021)

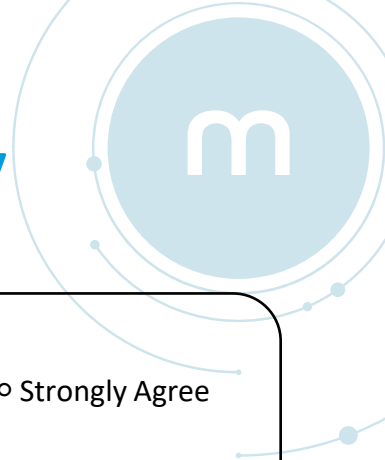
Goal was to address vaccine hesitancy and to nudge members towards getting the COVID-19 vaccine.



100k Medicaid members were targeted in April/May 2021 as part of a vaccine outreach campaign.



Uncovering Health Beliefs and Vaccine Hesitancy



Hi this is #HealthPlan#. Hope you're managing to stay safe and healthy during these challenging times! The CDC is recommending that you get a COVID-19 shot once the vaccine is available to you. We'd like to know how you feel about it – could you complete this 2-minute survey? Thanks!
<link to survey>

I am worried about getting coronavirus (COVID-19)

☐ Strongly Disagree ☐ Disagree ☐ Neutral ☐ Agree ☐ Strongly Agree

I will be very sick if I get COVID-19

☐ Strongly Disagree ☐ Disagree ☐ Neutral ☐ Agree ☐ Strongly Agree

A coronavirus (COVID-19) vaccine will protect me from getting COVID-19 disease

☐ Strongly Disagree ☐ Disagree ☐ Neutral ☐ Agree ☐ Strongly Agree

I am concerned about the following relating to the vaccine (you can select more than one)?

☐ Side effects ☐ Effectiveness ☐ Safety ☐ Cost ☐ Availability ☐ No concerns about the vaccine

How do you rate your overall health?

☐ Very Good ☐ Good ☐ Fair ☐ Poor ☐ Very Poor

My friends and family will help me decide if I should get the COVID-19 vaccine

☐ Strongly Disagree ☐ Disagree ☐ Neutral ☐ Agree ☐ Strongly Agree

When the COVID-19 vaccine is available...

☐ I plan to get it as soon as possible ☐ I plan to wait to see how it affects others before I get it
☐ I don't plan on getting it soon but might sometime in the future ☐ I don't plan to ever get the vaccine

I am confident that I will be able to get the COVID-19 vaccine once it is available to me

☐ Strongly Disagree ☐ Disagree ☐ Neutral ☐ Agree ☐ Strongly Agree

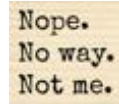


Health Beliefs and the COVID-19 Vaccine

2,921 Medicaid members (2.9%), with an average age of 39, responded to the survey. Questions covered self-rated health, beliefs about the vaccine, and levels of vaccine hesitancy/readiness.

Perceived Susceptibility

A person's subjective perception of the **risk** of acquiring an illness or disease.



I'm worried about getting coronavirus (COVID 19).

47% agree, 24% neutral, 29% disagree

Perceived Severity

A person's feelings on the **seriousness** of contracting an illness or disease.



I will be very sick if I get COVID-19.

41% agree, 33% neutral, 26% disagree

Self Efficacy

A person's **confidence** in the ability to successfully perform a behavior.

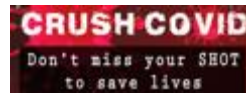


I am confident I will be able to get the COVID-19 vaccine once it is available to me.

66% agree, 21% neutral, 13% disagree

Perceived Benefits

A person's perceptions of the **effectiveness of actions** to reduce the threat of illness/disease.



A coronavirus (COVID-19) vaccine will protect me from getting COVID-19 disease.

43% agree, 30% neutral, 27% disagree

Perceived Barriers

A person's perceptions of the **obstacles** to performing the desired action.



I am concerned about the following relating to the vaccine.

Side effects, effectiveness and safety were the 3 main concerns.

Cue to Action (Social Influence)

The **stimulus needed** to accept the recommended health action.



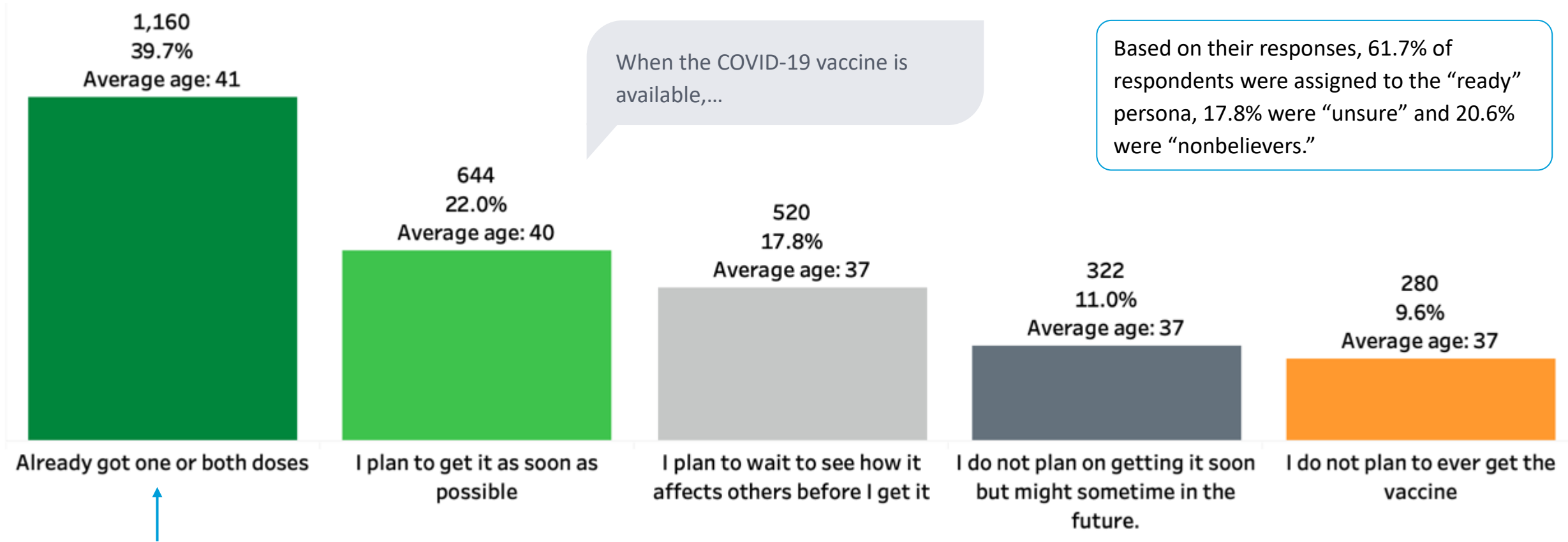
My friends and family will help me decide if I should get the COVID-19 vaccine

30% agree, 24% neutral, 46% disagree



Measuring Vaccine Hesitancy vs. Readiness

How did they feel about the COVID-19 vaccine?



These members got a positive response and follow-up messaging reminding them to still take precautions around unvaccinated people (mask and social distance). They did not receive the fotonovela.

COVID-19 vaccine outreach



Hi, this is #HealthPlan#. Here's a fun story about the COVID-19 vaccine and why you should get one soon to protect yourself and others.

Click the link to see more. <link to fotonovela>

click on link



We targeted 96,518 English speakers.
7,489 of them clicked on the fotonovela link.
This is a click rate of 7.8%.

7.8%

English speakers clicked to fotonovela

We targeted 3,589 Spanish speakers.
774 of them clicked on the fotonovela link.
This is an extremely high click rate at 21.6%.

21.6%

Spanish speakers clicked to fotonovela

Do you think you're more likely to get a COVID-19 vaccine in the next few months?

A word cloud featuring various Spanish and English expressions for 'Yes', 'No', and 'Maybe'. The words are arranged in a circular pattern around the central text. The colors of the words correspond to the categories: 'Yes' (orange), 'No' (brown), and 'Maybe' (blue). Other words are in various colors like green, pink, and grey.

Yes (orange)

No (brown)

Maybe (blue)

Other words include: Si, I already have, I have it, Ya la tengo, I took it already, I got it, I have already, I did, I'm still thinking about it, I might, Ya las recibí, Ok thanks, Idk, YES, Sure, No, 1, 2, 4, I don't know, Already have, Tal vez, Yeah, Did, Ya me la puse, si, Ok gracias, No., Ok, Ya la recibí, Claro, Don't know, I already have, NO, yes, I have it, Ok thanks, I'm still thinking about it, I did, I might, Ya las recibí, I took it already, I got it, I have already, Ya la tengo, No., Ok, Ya la recibí, si, Ok gracias, 4, I don't know, Already have, Tal vez, Yeah, Did, Ya me la puse, No, 1, 2, 4, I don't know, Already have, Tal vez, Yeah, Did, Ya me la puse, No, 1, 2, 4, I don't know, Already have, Tal vez, Yeah, Did, Ya me la puse.

Did we influence those who were on the fence?



Do you think you're more likely to get a COVID-19 vaccine in the next few months?

Yes: 443

No: 144

Members were 3 times more likely to say YES than NO

- 877 members answered the follow-up question asking if the fotonovela had influenced the likelihood of getting the vaccine.
- 443 said YES, 144 said NO, 290 had other responses (maybe, don't know, thinking about it, did it already)
- **This is a significant because it goes beyond "liking" or "enjoying" the fotonovela and is a measure of intention, planned action and/or behavior change.**
- The responses suggest that we might have moved people from being unsure towards more seriously considering getting the vaccine.

Fotonovelas and vaccines – a few insights



It was **effective to outreach before the vaccine was widely available** so they could plan and get ahead of the challenge.

- Use survey results for persona development and **targeted messaging** including the fotonovela which was **not sent to those who had already received the vaccine**.
- We were **able to engage and influence underserved populations (average SDOH of 84.7 on scale of 0-100 where 0 is very low need and 100 is very high need)** and communities who have historically been resistant to vaccines.



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mobile



How to Deploy Fotonovelas

Creating relevant fotonovelas for each member
health journey





How to Create an Effective Fotonovela

- How we create the images, mood board, story boards, partner with the client
- How do we work through that process
- Using industry research, evidence based, theoretical framework and what's being done in the field

Path Health said:

Hi Jane, your health is important to us and we wanted to check in on you to make sure you are getting enough interaction during Safer at Home. Would you like us to connect you to resources?

You said:

Yes, I'd like a resource

Path Health said:

These resources are helpful even if you don't think you need it! Doctors recommend exercise, daily phone calls, and cooking even for healthy people.





Developing a Program with Fotonovelas

We start by identifying the audience, program goals and common barriers

Who are we targeting and why?

- Medicaid, Medicare, disabled, uninsured, newly insured, other?
- Are there target subgroups who should be messaged differently?

What is the purpose of the outreach?

- To increase utilization (e.g., nurse line)?
- To influence beliefs or behavior (e.g., flu shots)?
- To increase knowledge or skills (e.g., how to use telehealth)?

What are the most common barriers?

- Health literacy, cost, transportation, caregiver responsibilities, patient-physician language discordance, anxiety about procedure and results, unsure why needed

How is the member receiving the digital experience?

- SMS vs. email vs. website

Creating a Narrative Arc, Mood Board, Storyboard



We develop a narrative arc

How many frames, how many characters, what is the storyline?

A mood board

Who are the characters, what do they look like, what is the best illustration style?



And a storyboard

Frame 4:

Pete: [pulls out the card from his wallet and turns it over]

My name's Pete and my member ID is 1234567.

Tricia: *Hi Pete, tell me how I can help you.*





What questions do you have?

Please type your questions in the Q&A box.



Thank you for Attending

You will receive an email containing a link to a brief online evaluation. If you requested CEUs when you registered, you must submit an evaluation in order to receive your certificate.

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