

VACCINATION from the Misinformation Virus

We SEE MONTAGE OF OLD PIX: 1918 FLU PANDEMIC

Bette Korber, PhD

Our lifespan for most of human history is short, right? We had 40 years if we were lucky and 40%, 45% of kids, depending on the era of history died before the age of 5. Then when you think about our lives, we get to see our children and our grandchildren grow up. The expectation is if you have a baby, you're going to get to see that baby grow up, that wasn't always the case. So the idea that we get these long lives, we get to see our children grow up, we can expect to see our children grow up, this is a gift of science.

We SEE FAMILY PICTURES from our INTERVIEWEES as we HEAR:

Denise A. Gonzales, MD

I think we've forgotten a lot of the lessons that we've learned over the last hundred years since vaccines were developed. There was a big polio outbreak, devastating. Then we developed a vaccine and we called it cured, we were free of polio. Likewise with measles, mumps, rubella and scarlet fever.

John D. Grabenstein, RPh, PhD

The medicine that has saved more lives than anything else is vaccines. Not insulin, not antibiotics, not medicines for blood pressure. It's vaccines that have saved the most lives. It's really a remarkable contribution to human health.

We SEE MORE FAMILY IMAGES from our INTERVIEWEES as we HEAR

Announcer:

"Funding for this program was provided by ... Presbyterian Healthcare Services, STC Health, The City of Albuquerque and SafeTeen New Mexico. Additional funding was provided by these generous donors" (graphic list)

FAKE MEDIA POST:

GRAPHIC:

***** Ten ways viruses come from mud pies. #5 will blow your mind.***

As we HEAR:

Brian Southwell , PhD

It's now possible for misinformation to appear on your computer screen and for you to quickly share that with 1000 of your closest friends. That's the basis for misinformation to quickly go viral. We're facing a threat from misinformation itself as a viral epidemic of sorts.

CUT TO Graphic:

**Falsehood flies
and truth comes limping after,**

CUT TO: (SOCORRO FOOTAGE)... As we HEAR:

www.ChristopherProductions.org

Friday, June 25, 2021

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Walter Dehority, M.D., MSc.

So viruses, many viruses, are incredibly contagious. They can suspend in the air. People can cough, sneeze or touch another surface, which someone else touches, which is then accentuated if those same people board an airplane or a train, cross continents, cross countries. And then, before long, you have a virtual explosion of the virus all around the globe.

CUT TO:

**so that when men come to be undeceived,
it is too late;**

CUT TO: (OLD NEWS FOOTAGE MUSHED) as we HEAR and SEE

Newscasters:

This is truly an unprecedented situation. This virus doesn't discriminate. It attacks everyone. The coronavirus changed life as we know it across America.

CUT TO:

the jest is over, and the tale hath had its effect
Jonathan Swift 1710

TITLE: CHIEF SAM GREIF, PLANO TEXAS....

Chief Sam Greif

I want to talk about the fact, that if anyone is doubting getting the vaccine, please, please get the vaccine. This is not a hoax. This is real. It's very dangerous. It comes on quick.

Graphic: Vaccination from the Misinformation Virus

DRONE SHOT Location Los Alamos National Laboratory Filming: Day 02

WE SEE Sara and her Family HIKING as we HEAR:

Sara Del Valle, PhD

I've always loved math since I was a child. I feel like the structured math is very structured and there's a lot of rules. And so I will always like that,////

We SEE old pictures of her family as we HEAR :

Sara Del Valle

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So I was born in Mexico. My parents are pastors, and so I moved around when I was growing up. When I was 16, my parents moved to New Jersey. It was a Spanish congregation and they wanted a Spanish speaking pastor

WE SEE MORE **FAMILY HIKING** AND HEAR

Sara Del Valle

I went to Cornell university for a summer program. And that's when I, for the first time, I was introduced to the fact that you could use mathematics to study infectious diseases and epidemics.

We SEE computer screen at LANL SPREAD ON COMPUTER SCREEN with Sara presenting as we HEAR

So this is one of the computer simulations that we developed in early 2020 showing what would have happened if we lifted some of the restrictions in June 1st of 2020.

Some of the restrictions that we included in our simulation included school closures, business closures, and mass gatherings. And so if you actually lifted all those restrictions on June 1st, you would have seen a secondary wave of infection.

GRAPHIC: HOW VIRUSES MOVE

We SEE DR. DEVALLE and then SEE smoke from VAPE show

Sara Del Valle

So I don't know if you've ever been to a restaurant or the park or a concert, and all of a sudden you smell smoke and you know that there's someone smoking in your vicinity. And so that's exactly how viruses are spread. Because you can't see them, you can basically inhale those particles, then you could potentially get infected.

BACK TO THE BOARD

So this is a social content network of 2000 people in California. And these are connections that they have. Their kids have at schools, the parents have at work and friends, or when they go to Starbucks and they meet other people at other places. And so you can see how highly connected we are. We actually touch our faces a lot, our mouths, our noses, our eyes. There was a study that was done. And they decided to use healthcare workers because they're supposed to be more aware of hygiene and viruses. And they noticed that on average, they touch their faces about 23 times in an hour. And face masks are actually protecting your mouth and your nose. And so even if you feel that urge to touch your mouth, you won't be able to because you have something that's blocking your hands and your mouth. And so that's why face masks are very effective in helping us, in protecting us from getting infected.

The spread of flu starts at airports, major cities, and then it soon starts spreading across the United States. Vaccinations help slow the spread of flu and all respiratory viruses, such as Measles and Coronavirus by removing bridges, or connections that we have in

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our population, we're all interconnected. And when we get vaccinated, we are basically breaking those bridges or those connections.

(GRAPHIC THAT SHOWS 1-3-9-27-81 ETC- CHECK #s)

There's a very important number that determines how fast an epidemic can spread or a virus can spread. And that is the reproductive number. And so if the number is less than one, that means that the virus cannot spread to even one person. But if this number is one or two or three, then you have an exponential increase. And that means that one person can infect three people and then those three people can infect three people, each of them. It varies from disease to disease. So for flu it's about 1.2.

(GRAPHIC THAT SHOWS 1-12-144-1728 ETC)

Measles on the other hand, the reproductive number is between 12 and 16. So one person can actually infect an average 12 to 16 people. And it's usually spread among children.

HEAR GRABENSTEIN V/O AS GRAPHIC CONTINUES TO EXPAND

John Grabenstein, RPh, PhD

So the first effective measles vaccines come along about 1963 or so, and widely adopted. Now let's come into the two thousands or so, and measles disappears, sort of. People forget about measles. Your cousins don't get measles. You don't know kids in your school class, who got measles. And so some parents become complacent, become confused and thinking that the measles vaccine is a dangerous thing when it is not. And so they withheld vaccine from their kids. Those kids accumulate and just like a whole bunch of tinder out in the forest, you throw a spark of a virus, amid a bunch of vulnerable kids, and you can have an explosion of measles cases. And that's what happens. The Disneyland outbreak from a few years ago.

DRONE SHOT Location **Pasadena California**

Filming: Day 04

TRANSITION TO ARIEL **BY HERSELF**

Ariel Loop, RN

We did everything right. I got my flu shot when I was pregnant because I was worried about pertussis and flu.

PICTURES OF THEM AT DISNEYLAND

Ariel Loop

And one of the first places we did a couple of weeks after he got that first round of vaccines was Disneyland. We got married there. We announced my pregnancy with him there. I'd wear him in a little baby carrier, and he would just look up, and he was just

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looking and listening and smelling and just very engaged, very engaged from the first time we took him.

TRANSITION TO SYNC SOUND / CHANGE IN MUSIC

Ariel Loop

And I remember waking up, it was on a Super Bowl Sunday, 2014. And I put my hand over and just kind of touched him because I woke up, and he felt really warm.

PHOTOS OF MOBIUS

And he had a bunch of spots on his chest. At that point, measles had been in the news, so I was kind of like, "Huh." I was like, "No, no, no. I'm crazy. I'm crazy. Like there's no way that my baby has measles in 2014. And then the spots kind of got worse. They started kind of spreading down his trunk, and he had a couple on his face, a couple on his arms.

MUSIC STOPS SYNC SOUND with ARIEL

Ariel Loop

I had no idea that measles could kill you. I had no idea. I went to nursing school. I had no idea, because I'd never seen it, I've never met anybody that recently had it. I knew it was really contagious, so I called the ER before we went, and I said, "I think my baby might have measles. I can't get his fever down, and we want to come in." The doctor had never seen measles. None of the nurses had ever seen measles. They were in the full PPE and taking it, again, very seriously, which was also terrifying. So they collected some blood, and they gave him some medicine, and watched him for a while. He was doing okay, so we went home. Four days later. It took four days. So his spots were starting to get better. But his eyes itched. We had to take him to an ophthalmologist in default, just to make sure he didn't have any eye damage, because you can get pretty serious eye complications for measles.

Letitia Dzirasa, MD

So, this is a disease that was pretty close to being eradicated. And then we started to see a trend where people weren't getting vaccinated. So, we've subsequently had some measles outbreaks starting in 2000s. We had a small measles outbreak here in the Baltimore Metro region, back in April of 2020. Again, because we're seeing less and less people get vaccinated and it's a highly contagious disease.

Denise A. Gonzales, MD

Which is why it's important that each and every one of us is vaccinated against everything that has a vaccine. But over the last two decades there's been a lot of pushback against vaccines.

We SEE Ariel in her full PPE at work

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Ariel Loop:

I spent the last year taking care of patients with COVID-19. And it was really hard, being a nurse, having spent years advocating for vaccines and for public health and still seeing people not take it seriously.

We SEE Ariel and Mobius walking together in front of flower garden.

I know they have been spending years developing mRNA vaccines. I was working in a respiratory ICU. So I was one of the first ones to be able to get it. And I was so happy and so relieved. So I trust science. I trust, the people that have spent their entire lives, developing these vaccines and studying science and doing it the right way.

We SEE Mobius jump into mom's arms and kiss in Slo Mo

So one thing I didn't realize about measles is that not only can it kill you right then when you're actually sick, but it can kill you years later. The younger you were when you got measles, the more likely it is to happen. I feel a little safe, but every time that he was starting to get a little bit of a little cold, every time I'm like, "Is this it? Is this it?" So, yeah. So I've spent the last six years being afraid that he could still die from measles.

John D. Grabenstein

If enough people are immune, then it's hard for the virus to jump from one person to the next. With a virus like measles that is extremely transmissible, you have to have 95 or more percent of the people protected, immune to prevent transmission. Other viruses aren't quite so transmissible. You can get away with a smaller number.

GRAPHIC: HERD IMMUNITY

Herd immunity's about efficiency. Some of that herd immunity is being contributed by people who have had the disease before, some by people who've been vaccinated. But then the number is going to change based on whether, am I wearing a mask? Are you wearing a mask? How far apart are we are? Am I singing at church and sending out droplets? All of those things... It's not like there's a magic number. Because people keep moving around in the society and doing different things, and that number's probably different in different places, on different days.

FAKE MEDIA POST:

Some Viruses are over 50 years old. What they look like today will scare you.

GRAPHIC: "Falsehood Flies"

Brian Glen Southwell

If you are engaged with the world just through a search engine, that's going to be a different lens than if you are regularly paying attention to people and institutions and sources that you have put your trust in over time. There is value in well done professional journalism. There is value in academic research. We know who is putting that information together.

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DRONE LOCATOR: Tricore Laboratory, Albuquerque **Filming Day 03**

Karissa Culbreath, PhD

So I have a PhD in Microbiology and Immunology. And then I did a post-doctoral training at University of North Carolina in Chapel Hill in Medical and Public Health Microbiology.

WE SEE Culbreath preaching and images of her and her father looking at church pictures as we HEAR

So I am a Christian in my personal belief system and I'm a scientist and there are some people who would say, "How is that even possible?" I believe, for me personally, my science builds and reveals my faith, and my faith reveals my science. And so, that for me is this perfect synergy of saying, "I believe in things that I can't see. I believe in things that I've not yet discovered. I believe in things that are still even only theory, but I work to prove the theory." Now, was I talking about my faith or was I talking about my science? They go hand in hand.

GRAPHIC: VIRUSES VS. VACCINES

We SEE her in the LABORATORY WORKING as we HEAR

Karissa Culbreath

So one thing that we're really learning so much about right now is called the microbiome, and that is this whole interaction of this microbial world inside our bodies.

GRAPHIC: BACTERIA – good and bad

Bacteria that are naturally occurring, they're inside of our body to keep us healthy. So we have microbes that are part of our natural community,

GRAPHIC: PATHOGENS = DISEASE

And then we have microbes that are pathogens, and those pathogens are the ones that cause disease. So vaccines, they come in to play because they are able to then help our bodies combat the pathogens that cause disease in our bodies.

Walter Dehority, M.D., MSc.

So, the vaccine is actually injecting a portion of the pathogen you're trying to prevent without that causing any damage. We can inject just that part. Not capable of causing disease, but it is capable of allowing the immune system to learn and practice on it so that when you actually do see the pathogen you're prepared.

GRAPHIC: VACCINE (arrows) Anti-bodies / T-cells (arrows) PATHOGEN

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Karissa Culbreath

And we produce antibodies, we produce T-cells that are able to recognize that pathogen in the future. So if we get exposed to it again, the whole immune response will start over again.

Walter Dehority:

Your body is learning. It learns from the vaccine. The immune system practices, so that when the actual time arrives and you're exposed to the real pathogen, it's ready to go, armed and ready for battle. I don't think it's an overstatement at all to say vaccinations are one of the most important medical advancements in history.

WE SEE OLD FOOTAGE OF MILKMAIDS AND COWS

GRAPHIC: First Vaccine 1796

John Grabenstein:

So the first vaccine was 1796. Edward Jenner develops the first vaccine, which is the vaccine to prevent smallpox. And the number one killer of humanity in history was smallpox. And that becomes vaccine preventable. If you choose to take the vaccine.

GRAPHIC: 20th Century Smallpox killed roughly 300 million people)

We SEE THE BARNYARD AND THE ANIMALS AND DAN LEVENSON

Walter Dehority:

So the traditional narrative of that, is that Edward Jenner noted that milkmaids had fair complexions, and didn't have pockmarks because they weren't infected with smallpox.

Daniel Levenson, DVM:

Mr. Jenner, finally started to put two and two together about the milkmaids. The women that were working with the cows were not getting sick from smallpox, or they were getting very mild infections and they were all surviving, whereas it was killing something like a third of the people that were infected.

Walter Dehority:

So through the process of milking the cows, they would come into contact with the cowpox secretions, had become infected and then unknowingly that would provide them protection against the more dangerous smallpox.

GRAPHIC: VACCINE Latin 'vacca' = cow

Daniel Levenson:

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From what I understand the word vaccine comes from the Latin word, vacca, from the cows because of the cowpox story and the whole inoculation and things.

Walter Dehority:

The real story is much more complex. The concept of purposely exposing someone to some infectious material to keep them safe from an infection actually probably went back several hundred years prior to that. The Chinese, Indian and African societies had developed very similar technology. So Jenner didn't invent the idea of vaccination. He was the first to test it and to see the public health benefits, which were eventually shown to be true. When 200 years later, we actually did eradicate smallpox with a variant of his vaccine.

Daniel Levenson:

It's pretty obvious, even as a veterinarian, that as we come more in contact with wild animals and we start to expand our cities and our farmlands that interaction with animals is going to get worse and worse. And so we have to worry more and more about these zoonotic diseases, diseases that can be passed from animals to people.

GRAPHIC: ZOOONOTIC DISEASES ANIMAL TO HUMAN

Most noticeably, rabies, which we know is a virus that's almost always fatal. One good way to protect people is to protect our pets and our animals and that way it acts as a buffer. Having our dogs and cats vaccinated, and our other animals as well, protects them from getting infected, which then would protect us.

GRAPHIC: Native America Calling

We SEE EXT NATIVE AMERICA CALLING STUDIO Art goes in door as we HEAR multiple voices.

Producer:

Hey Shannon. It's Monica from Native America Calling.

Host:

Okay. Hang tight. We got a couple of more sound checks to go and then we will be live.

We SEE DR. MCCABE get settled into INT STUDIO as we HEAR

Melvina McCabe, MD:

So, we have a filming crew here and they are going to be making a documentary-this will be part of it-addressing some of the COVID-19 concerns, the vaccine, vaccine hesitancy.

SEE Engineer and Producer, dials etc.

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Producer:

There's a break at :18 past the hour and one at :38 past the hour. //// I think she's starting with Shannon, okay?

Announcer:

Native Voice One, the Native American radio network.

Tara Gatewood, Host:

This is Native America Calling. I'm Tara Gatewood joining you live from my homelands of [Native Language]. And today, we are going to start off in Pawhuska, Oklahoma. With us today is Shannon Shaw Duty.

We SEE COVER OF THE ARTICLE

And so, Shannon, you wrote an editorial in the Washington Post, "My Osage Tribe is Swimming in Vaccines, But the People Won't Take Them".

(PUSH TO Pawhuska Oklahoma on Map)

Shannon Shaw Duty:

We are unlike many Native communities outside of Oklahoma. We have been spared the worst of COVID's harm. Also, there is historical trauma here. There is mistrust of the federal government. (START AUDIO CROSSFADE TO MCCABE). In the 1970's, Native American women were sterilized by the Indian Health Service.....

TRANSITION TO

Melvina McCabe, MD:

Our people tend to trust our doctors overall and so that's who they will go to. Our people will tend to trust our elders and that's who they will go to. Our people tend to trust our traditional practitioners and that's who they will go to.

We SEE ROLAND in slo mo walking down the fence line as we HEAR

Roland Begay:

Well, during my upbringing, I was raised around a lot of medicine men. My great grandparents, my grandpa, my dad. So a lot of what I do has been passed down, down through generations. A lot of our old folks, they're pretty much... They're still rooted traditionally and in their culture. So a lot of them still practice the old ways, the traditional side of it.

Brian Vallo, Governor:

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This inherent responsibility to care for people, to care for culture, to care for land, animals, every living being that's the core of our concept of health and wellness. We have our own ways of accessing traditional medicine and traditional healing. But in this case with this virus we need to supplement that with Western medicine and it calls for vaccination.

PICTURES OF ROLAND BEING VACCINATED

Roland Begay:

Going out there and getting vaccinated is one thing that I think everybody should look at. We all want to be safe, not with just ourselves, but our little families that we have, our community, our elders.

Jessica Tsabetsaye, PA

Being on the front lines I did feel that it was really important to get the COVID vaccine just to help with safety, not only for myself and my family. I wanted to make sure that even though I was taking all the precautions, wearing a mask and doing social distancing, isolating myself from the rest of my family, that I was also safe enough to see patients and not provide an additional risk for the patients to get sick.

BACK TO THE STUDIO

Tara Gatewood:

Also joining us today here in Studio 49 in Albuquerque is Dr. Melvina McCabe. And so, Dr. McCabe, with this historic time, we get to a conversation that is quite important and also revealing about the history and the traumas our Native nations have gone through.

Melvina McCabe, MD:

In our history, we have had governmental policies that have impacted this distrust from the government. We've had our treaties broken. We've had research, unethical behavior being conducted in research. We've had in the clinical practice, as Shannon mentioned, the sterilization of our Indian women in the 1970s. This was without their consent, without their knowledge. Our Native peoples know this, but anyone who wants to work with Indian country, they need to be aware of this. Some of the things that I've heard, and I think Shannon mentioned this, is that these vaccines were rushed, so they're afraid that they're not safe. There were strict protocols, strict oversight. There are independent groups that monitor these results and give their opinions on it. These independent groups are scientists. They're not part necessarily of the Food and Drug Administration. Of all three of the vaccines, the Pfizer, the Moderna, and the Johnson & Johnson, the J&J vaccine, all of them near 100% effective in reducing severity of disease. And severity of disease, severity is defined in this case as being hospitalized, being intubated, and even death.

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Tara Gatewood:

On the line with us today is Susan out of Bethel, Alaska tuned into KYUK. Thank you for giving us a ring, Susan. You're on air.

GRAPHIC: MAP, PUSH TO BETHEL, AK

Susan:

I wanted to say that I got the vaccination as soon as I could. When I have dialogues with others that have not gotten it or don't want to get it or are hesitating. Don't let it turn into an argument, but just keep the dialogue open and really listen.

Tara Gatewood:

Dr. McCabe, we know how things go in our tribal communities. They're seeing news reports. And the moment something adverse gets reported about vaccines, people are buzzing about it.

Melvina McCabe, MD:

The first comment I want to make is that there's lots of misinformation over social media. Before just really accepting that, again go back to asking your doctors whether or not that kind of information is true.

Tara Gatewood:

All right. Thank you for that. Also here too out of Seattle, Washington is Abigail Echo-Hawk. She is a director of the Urban Indian Health Institute and the chief research officer at the Seattle Indian Health Board. She is Pawnee.

GRAPHIC: MAP, PUSH TO SEATTLE WASHINGTON

Abigail Echo-Hawk:

Out of the people that we surveyed, we found that 75% were willing to get vaccinated. However, simply because they were willing didn't mean that they didn't have hesitations.

GRAPHIC: **IMAGE OF WEBSITE UIHI**

Abigail Echo-Hawk:

We have local, regional tribal centers who are putting out really good information. Go to where the information for Native people by Native people is.

Tara Gatewood:

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All right. Thank you for that. Plenty more to be said. Visit us online, nativeamericacalling.com.

SEE DR. MCCABE REMOVING HEADSET

Melvina McCabe, MD:

I think we're done.

SOCIAL MEDIA FAKE POST:

**** *Six ways Elves create vaccines in tree trunks. You won't believe #3.***

GRAPHIC: "the truth comes limping after"

Walter Dehority:

Studies have shown, that compared to the more traditional forms of media, such as television, radio, newspapers, wire services, which tend to present a positive portrayal of immunizations, a more modern form of social media, such as Twitter and blogs and websites, are more likely to portray an anti-vaccination slant.

Brian Vallo:

When schools went virtual, many of our households now had access to the technology, many of them did not before that time. And so as students were being issued Chromebooks and other technology here was another resource for accessing that information available to the rest of the world. We started to see that there were some not so reliable sources of information that were being shared and being passed along from household to household.

GRAPHIC: MISLEADING STATISTICS

Walter Dehority:

Every year there's about 120 million Americans that get a flu vaccine. If you follow 120 million Americans for several weeks after a flu vaccine, things are going to happen. Those 120 million Americans will get heart attacks. They might be diagnosed with cancer. They may get bitten by a shark or struck by lightning. Most of the time, that has nothing to do with the vaccine. It's merely a coincidence. The rate of those adverse effects are often just the same, if not higher, in people who didn't get the vaccine.

Pharmacy Students:

Vaccines help create antibodies to fight diseases.

There are several kinds of vaccines

INACTIVATED (GRAPHIC behind the speaker)

Use the killed version of the germ.

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LIVE-ATTENUATED (GRAPHIC)

Use a weakened or attenuated form of the germ.

TOXOID (GRAPHIC)

Create immunity to the PARTS of the germ that cause a disease.

SUBUNIT, RECOMBINANT, POLYSACCHARIDE AND CONJUGATE

Give a targeted response to key parts of the germ.

VIRAL VECTOR (GRAPHIC)

Use a modified version of a DIFFERENT virus to deliver protection.

Like adenovirus which causes the common cold.

Adenovirus is used in some COVID-19 vaccines

Melvina McCabe, MD:

Now going to the Messenger RNA vaccines, which Pfizer and Moderna have, we've had the technology for the Messenger RNA since 1990. So we've been working with this technology. The technology itself is not new.

Karissa Culbreath, PhD:

So the science behind the vaccine has been working for 10 to 15 years. And now when we have a global pandemic, we take the science of the last decade and we build a vaccine based on that. And so while warp speed sounds good as a marketing piece, it sounds really good, science never happens at warp speed. Science is always built by the scientists from before and we take the backbone that was provided by each scientist and we move the field forward.

Walter Dehority:

So we have many, many vaccines because we have many, many diseases. And so as we develop new technology, we see a new vaccine. So we have now vaccines against human papillomavirus, which is the first cancer vaccine.

Pharmacy Students:

Vaccines protect you

They are EFFECTIVE

AND safe

They protect against:

Hepatitis A

Flu

Polio

Rabies

Measles, mumps, rubella

Rotavirus

Smallpox

Chickenpox

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Yellow fever
 Diphtheria
 Tetanus
 Hepatitis B
 HPV (Human papillomavirus)
 Whooping cough
 Pneumococcal disease
 Meningococcal disease
 Shingles
 Vaccines save MILLIONS of lives each year.

SOCIAL MEDIA FAKE POST

**** When turtles get the vaccine, what happens next will leave you speechless.**

Brian Southwell:

We have motivations for the information that we seek. At the end of the day, people want to be right and people want to have a sense that their worldview is one that is validated. We can be blind to information that really is at odds with what we thought was the way that the world worked.

**GRAPHIC: so that when men come to be undeceived,
 it is too late;**

Walter Dehority:

So a lot of individuals think that they don't need the flu vaccine because they've never had the flu. They probably have had the flu, they just didn't get tested to confirm it. Many people believe they get sick from the flu vaccine. Most flu vaccines though, are not capable of giving you the flu. So they probably are infected with something else, which they mistakenly believe is flu. And so some, some people believe well, if I have to get vaccinated every year, clearly it's not working and I don't need to get it. That's also a false belief.

DRONE SHOT GRAPHIC: Richmond, Virginia

Filming: Day 07

AUDIO INSERT: PHONE RING

Shantelle L. Brown, Pharm.D.:

HOPE pharmacy, Shantelle speaking, may I help you?

We SEE a quick montage of Santelle growing up...as we HEAR

Shantelle L. Brown:

So I grew up in Henrico county, but I spent a lot of time here in Church hill. My church that I attended is cattycorner here from this building, so I grew up attending that church. And so it feels good to be back here in a community that I was with for so long as a child. But there's still a lot of need. This is considered a food desert where we are.

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We SEE the drive by of the CORNER STORES

When we talk about a food desert, lack of having access to fresh fruits, fresh vegetables. So you'll see that there are a lot of corner stores located here, but they don't have the healthy foods. And that's what we really promote here.

WE SEE SHANTELLE WALK IN THROUGH THE MARKET

As soon as you walk in the door, it's nice, it's bright. And we want people to really have that access to it and the prices are affordable. And for me, the first thing I don't always think about is the medication. What are we doing different with things that can prevent you from having to go into the hospital and having to take medication. And so that's what we're trying to really promote here, the healthy lifestyle.

AUDIO INSERT: PHONE RING

So we're going to have to call the doctor on the blood pressure medicine.

GRAPHIC: HOPE Helping Others Physically Prosper

I am a firm advocate of vaccinations and so, HOPE, "Helping Others Physically Prosper", that's what it stands for. And the vaccinations is key because we're having others physically prosper through education as well as immunizations from influenza, from pneumonia and shingles, all those things that the community needs.

AUDIO INSERT: PHONE RING

So what I'll do is we'll get the others filled and ordered for you and have them delivered out to you, okay?

WE SEE THE girl getting her Covid vaccination

Okay. You look a lot like your mom. I know your siblings, the twins so, my girls Morgan and Kendell (FADE TO...)

We're here to give you the comfort that you may need in order to make the best informed decision for yourself.

We're done. We are.

Girl:

I don't know why they said that hurt. (laugh)

Brandy Paige, mother:

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People are dying, this is not a joke. So I went ahead and got vaccinated. My daughter got vaccinated today. And we're waiting for the younger children to get vaccinated because all of us are ready to just resume normal life.

Shantelle L. Brown:

I believe in the benefits and the healthiness of the community and so, and our families. And so those vaccines, I think they really, they are the instruments that'll keep us alive. I believe that a pharmacy really bridges the gap, this pharmacy is bridging the gap between the old and the new.

AUDIO INSERT: PHONE RING

We come to South Side so we can still take care of all of your prescription needs. All right?

GRAPHIC: HEALTH DESPARITIES

WE SEE PICTURES OF DR. CHERRY FROM PEACE CORP AS SHE SPEAKS

Sabrina T. Cherry, DrPH, MSPH, MTS:

I served in the Peace Corps in The Gambia, West Africa. I teach now, but I'm actually a practitioner by trade. So I spent 16 years in public health before transitioning to academia.

ESTAB SHOT THE BEACH AT SUNRISE **GRAPHIC: Wilmington North Carolina**

So, for a scientist, they would think 'why can't you see the connection between COVID-19 deaths, and just get vaccinated? It's just that simple'. But it's not just that simple, right? It is that, sometimes, people will risk dying from a disease, over the chances of living from something, that they know nothing about, based on the trauma that they've encountered within a system.

SYNC SOUND AS WE SEE SABRINA

I am obviously speaking as a Black woman, but we know that these injustices are not only against African-Americans. We know that they tend to be absolutely against communities of color in general. We know that they are absolutely perpetuated against communities who are disenfranchised.

OLD PIX FROM DR. GONZALES

Denise A. Gonzales, MD:

So I grew up in a colonia in Southern New Mexico, near the Texas border. Colonias are unincorporated towns. And so, being unincorporated and rural and having a large migrant community means that there's a lot of poverty. My mom would have to drive us

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26 miles to El Paso so that we could see our pediatrician, whereas most of the people didn't access healthcare.

SLO MO OF DR G WALKING DOWN HALLWAY

So, I'm a pulmonary critical-care physician. I oversee adult medical specialties which is various medicine-trained specialties, plus neuroscience which includes neurosurgery. But for myself growing up in a colonia, the hesitancy has more to do with immigration status and with language barriers. And so the hesitancy isn't about the vaccine, per se. It's hesitancy to make yourself known and possibly face things like loss of job or deportation.

Melvina McCabe:

So some of the key factors are the social determinants of health. We're asked to wash our hands. Well, many of our communities don't have running water. We were asked to physically distance. Many of our communities are living in multi-generational homes so it's almost impossible to physical distance.

Mechem Frashier, RN:

A lot of our Native American communities live on reservations, and they're very limited to transportation to get to testing. So one of the things that we were able to provide this past year was a mobile unit for testing that actually brought testing to their communities, to their pueblos, to the reservations.

Letitia Dzirasa, MD:

In COVID-19, I think we saw this play out, right? Where certain people, because of where they live, because of where they worked, were at much higher risk for contracting the disease. People who worked essential jobs, right. And you're more likely to work an essential job if you're African-American or if you're minority, much greater risk of exposure, because you're around people, you have to go to work. Maybe you don't have sick leave. I might be insured, but do I have time to take off work to go to the doctor? Is there a doctor in my neighborhood? We also see residential segregation, right? And we see, again, more exposure because you're not able to safely isolate because you're living in more crowded housing.

Sabrina T. Cherry:

And so what does it mean to be in a community where you can't afford the houses that are in your own community, where you grew up? What does it mean to go to a grocery store and there are no fresh fruit and vegetables within the store or the items within that store are overpriced. Where do you go? What do you do? Before you even think about, show up today at 12 o'clock for this vaccine, that for the layperson, it seems like it was just produced within the last couple of months. And I want you to trust the availability of this resource.

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WE SEE Wasserman running and HEAR:

Michael Wasserman, MD, CMD:

So I'm a geriatrician. I also ran the nursing home arm of California's quality improvement organization. And then I ran a nursing home chain. And on February 29th of 2020, I heard about the first case of COVID in a nursing home in Washington state. And at that instant, I knew what was coming. It's deadly to older adults, and it's really deadly to people in small congregate spaces. So you'll see it in nursing homes, where at the beginning with people not wearing masks, it spread like wildfire and it killed a lot of people. You'll also see it in communities of color, in multi-generational households, where the kids bring it from their work in a manufacturing plant. They bring it home. We anticipated that nursing home staff might not have the confidence to take the vaccine. For a lot of reasons. The biggest reason being that a lot of nursing home staff are poor women of color.

Sabrina T. Cherry:

But if you think about the healthcare system as a system, that is part of a larger structure, part of an educational system, part of a law enforcement system, part of a social services system. If you look at healthcare as a part of these overarching larger systems that people interact with on a daily basis, then we understand why there could be hesitancy. We understand why there could be a lack of trust.

Michael Wasserman:

And I think, this virus has absolutely shone a light on social determinants of health. For people under the age of 65, 70% of the deaths in California of those under the age of 65 have been in Latinos.

Sabrina T. Cherry:

So in terms of historical trauma, if we think about Black Americans specifically, living on plantations, being enslaved, being dehumanized on a regular basis, being raped and beaten and hung in public space. Being drowned, being mutilated. That's our history. That's how we landed here. That's how we came to know this country. And then if you think about fast-forward, people say, oh, but slavery was so long ago. We think about the '60s. If we think about the '70s, if we think about the '80s, if we think about the '90s, if we think about the year 2000, if we think about the year 2021 and how Black Americans are treated within this country. People sometimes think of historical trauma as the retelling of bad stories that happened a long time ago, but that's not it. It is the trauma that occurred that continues to reoccur on a daily basis. When it comes to thinking about health equity, and reducing health disparities, it's not just with healthcare, it's with all the systems that people, people of color, poor people, disenfranchised people, encounter every single day.

GRAPHIC: VACCINATING COMMUNITIES

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EXT ESTAB SHOT of El Centro Family Health

Matthew Probst, PA-C:

I'm a Physician Assistant and I am the Medical Director and Chief Quality Officer for El Centro Family health.

WE HEAR the following bite as We SEE Matt walking down hall SLO MO:

So my biggest concern with the vaccine is that even though we'd been really fast, fastest state in the country, is that for some individuals, it's just not fast enough. We lost our first colleague to COVID on Christmas day, a dear colleague of ours died on Christmas day. (SYNC SOUND) And back then I said, man, if we would have just had the vaccine maybe a month earlier, she could still be here. And her kids wouldn't be missing her on Christmas day.

We SEE AND HEAR Matt in Exam room GREETING patient.

Probst: Dennis.

Dennis: Hello Doc, how are you?

Probst: Good. How are you today?

Dennis: Doing Fine.

Probst: All right. Good to see you.

Dennis: Likewise, good to see you too.

Continue SEEING the EXAM as we HEAR

Matthew Probst :

And so working for a federally qualified health center, our job is to be the safety net. Some of the poorest counties in America when we talk about economic disparity.

SYNC SOUND OF EXAM

Dennis: I do have a concern and it's basically pertaining to side effects that you might encounter.

Probst: Yes, there can be side effects. Usually they are very mild. But it's very common to get some kind of mild flu like symptoms, just feeling run down, a low grade fever, soreness, fatigue. Those are very common side effects, the range is usually those last a couple of days, at the longest.

Matthew Probst:

Nothing's perfect in life, and in healthcare the same, but it becomes about odds, it becomes about what's most likely to help you weighing risks and benefits. And the truth is when we're talking about vaccines, it's not close. It's not even close.

BACK TO THE EXAM ROOM

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So getting side effects from the COVID vaccine is, it's like a warmup. Your body is getting prepared for a real battle later. And so in this warmup, in this conditioning, getting your immune system conditioned to be able to fight off this deadly virus later.

We SEE MATT talking with the OFFICE STAFF

Matt Probst: 18 more, awesome. That's what I like to hear. Great. Good, good, we're getting those shots in arms, thank you girls.

And some of the most vulnerable patients, if their physical challenges, their health challenges do not allow them to leave the house. We've got to get those folks vaccinated as well. But sometimes when you have a small population, you're able to mobilize better and you actually get an advantage and you end up being faster in those communities. Now within every community, there's still that equity.

We SEE Matt walking away down the HALL IN SLO MO as we HEAR:

Now I just had last week, my first patient, a family member pass away, and recognizing if I could have just gotten her and that family vaccinated. Four COVID infections in that family and one death, one long-hauler now is what it's looking like, and that could have been prevented.

EXT ESTAB shot of Notre Dame of Maryland University.

Professor:

We're going to look at the different syringe types today. So remember when we're doing vaccines, it's all about safety, safety for you guys and safety for the patients.

TAKE AUDIO DOWN AND SEE TRAINING as we HEAR

Anne Lin, PharmD.:

But it's really important to remember that you chose a profession where it's not just about you, but it's about caring for patients who need care.

WE SEE crew filming a group of students with Dean Anne Lin. Eventually we HEAR DR. LIN SYNC SOUND:

So we have asked you to participate in a number of different COVID-19 vaccine clinics over the course of the past year.

MORE SHOTS of the students with Dr. Lin as we HEAR and/or SEE

Student:

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As pharmacists or pharmacy students, when patients come to get the vaccine, we are able to speak about our knowledge about the drugs and make them feel safe and comfortable.

Student:

It's incredible to see that pharmacists have truly been, among other healthcare providers, on the front lines and in the communities, really helping to provide that hope for people.

MUSIC HITS AND we SEE entry sign

QUICK MONTAGE of Socorro Clinic as WE HEAR

Uri Bassan, RPh.

We're going to have you wait for 15 minutes so we can monitor you for any adverse reactions. So we are going to places like Cimarron, Mora, Springer, Tucumcari, anywhere where they have less access to healthcare.

MORE MONTAGE OF OUTDOOR CLINIC

I've been a pharmacist for 20 years. Now we finally find ourselves in a pandemic where tens of thousands of people are dying and everybody needs to be vaccinated, which happens to be my specialized skillset.

MORE OF THE SOCORRO OUTDOOR DRIVE THROUGH....

Just so you know, the most common side effect is soreness at the site of injection. So your arm will probably be a little sore tomorrow. That's normal, and I think it's good, so you know that the vaccine is doing what it's supposed to do and you're getting a reaction.

Patient:

Okay, well you've been real kind, thank you for your time.

MORE OF THE SOCORRO CLINIC, PERHAPS THE SIGN GOING IN AS WE

HEAR Dr. Lin

Anne Lin:

When physicians' offices closed during the pandemic, pharmacies didn't close, because where else are people going to go? The closest person they can find that's a healthcare provider when everything's shut down is the pharmacist. Everybody lives within five miles of a pharmacy. We are accessible and we're knowledgeable.

WE SEE THE STUDENT GROUP AS WE HEAR AND THEN SEE

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Student:

Coming into the pharmacy profession, we're able to be the middleman between patients and their medications.

Student:

I feel like as a pharmacist, we can do more. I feel like being as a frontline and COVID pandemic, we've been doing more than just giving vaccines.

GRAPHIC: VACCINES AND LIFE

We SEE pictures from our interviewees growing up.

Bette Korber, PhD:

Our lifespan for most of human history is short, right? We had 40 years if we were lucky. That's what's changed for humanity. So I'm in my sixties. I would not have made it in most of human history, right? And I don't have grandkids, but my sister does and I can watch these beautiful little ones grow up and I can know when they're born that I've got a really good chance of getting to see that. So, that's new to us and that's a gift of science.

Karissa Culbreath, PhD:

The evidence of the effectiveness of vaccines is that I don't know anybody who's ever had measles, I've never seen mumps, I've never seen rubella. **(OLD PICTURES / OLD MOVIES)** That's the challenge of the vaccines arguments because now disease doesn't happen and we have to remind people who've never seen the disease that the disease exists. We have generations who never knew polio. Now, my children's generation is a generation that will never know chickenpox. I think now coronavirus vaccine actually creates this new space of a generation that saw the impact of disease, and then they will see the impact of the vaccine. And that's what I think is the argument that we have to continue to make, that absence is the effectiveness.

GRAPHIC: THE FUTURE

Walter Dehority:

We're going to see several big advancements. So we are working on needleless vaccine delivery systems, oral vaccines, vaccinations that can be given on the skin that would not involve a shot into a muscle. We're going to see some really elusive pathogens over the years that have been medical scourges that we have not been able to prevent, that may come under the control of a vaccine. And perhaps, hopefully what many people consider the Holy Grail of vaccinations, an HIV or AIDS vaccine.

Bette Korber:

So, mosaics was an idea that I had where you could weave together different viruses to try to get the most common forms of the virus. And so it got advanced them to, on two

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large scale trials and they're ongoing right now. So it's going to determine if it actually is able to prevent HIV in people.

John Grabenstein:

So the good news is that two technologies that were in development have now been proven to be really effective, the mRNA type of vaccines, and the adenovirus vector type of vaccines. Now scientists can go back into the labs and test them against viruses and bacteria, where there is no vaccine right now.

Betty Korber:

So one of the things I've been working on over the years is not just on HIV, but trying to get vaccines that might help prevent the next pandemic.

John Grabenstein:

How do I get you, or anybody, willing to roll up your sleeve and take that injection. How do I convince you that it's worth it? It's worth it because you get years and years and years of protection against some pretty nasty viruses and bacteria. And that's why it's worth it.

Matthew Probst:

So I sure hope that this crisis, that this does transfer beyond just COVID to other diseases, to other vaccines. That this allows us to have higher rates of hepatitis B vaccination to have higher rates of childhood immunizations, influenza, across the board. (IMAGES OF BODY BAGS, ETC) And the same way I hope that we never forget the pain that the disparity has caused. The obvious shortfall we've had as a society is that our most vulnerable folks had a much higher death rate. If you can't access just those basic social services, you're going to have a really hard time surviving a healthcare crisis.

GRAPHIC: the jest is over, and the tale hath had its effect

Brian Southwell:

So we all now are living in a chaotic world filled with information and with misinformation under many circumstances. Some of the best advice we can offer is to slow down a bit. To take a breath, to recognize that when you are met with a piece of information that seems to be dramatic, that seems to be telling a story that perhaps is too good to be true, that perhaps it is.

Brian Vallo:

And we understand also that even while we might achieve herd immunity, our lives are not going to be back to the normal that we knew and this new normal is unknown.

OLD PHOTOS TO NEW PHOTOS

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Once we have that better understanding, I think that it then will afford us the opportunity to do some meaningful work as tribal communities and to do the real healing. Because Acoma isn't going anywhere, we've been here over a thousand years.

We SEE GOV VALLO on the hill viewing ACOMA PUEBLO

And if there are these hidden opportunities that result from all this, those little bits of lessons learned I think where we have a greater value for our lives on this earth and for each other, those are the pieces that will ensure cultural vitality and sustainability a thousand years from now.

CREDITS

Anne Lin: I got vaccinated because I want to make sure my parents, who are in their late 80's and live with me, stay healthy.

Denise Gonzales: I got vaccinated to protect our community.

Jessica Tsabetsaye: We all got our shot.

Sabrina Cherry: I got vaccinated because of my mother. I would never do anything to put her life at risk.

Sara Del Valle: I got vaccinated because I want to protect myself against infection but also because I want to protect my daughter, my husband and my community.

John Grabenstein: I get vaccinated to protect everybody else. When I'm immune, it makes it harder for the virus to jump from person to person.

Mechem Frashier: I got my COVID-19 vaccination.

Matthew Probst:

For every vaccine given, that's a potential life saved.