

CONFERENCE

2023 Walter C. Alvarez Award Address

Building Trust in Public Health: Integrating Communication Every Step of the Way

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The Walter C. Alvarez Award is named in honor of Walter C. Alvarez, MD, a pioneer in the field of medical communication. The award is presented to either a member or nonmember of the American Medical Writers Association (AMWA) to honor excellence in communicating health care developments and concepts to the public. The Alvarez Award is presented during AMWA's Medical Writing & Communication Conference.

Good afternoon, everyone. Thank you for this honor, I'm incredibly excited to be here. And I know it's going to sound a little cheesy, but it is also an incredible relief to learn about AMWA. The reason for that is that I am an epidemiologist; I am a scientist, at least that's who I was during pre-pandemic times. When the pandemic hit, I really stumbled upon scientific translation and scientific communication. I always loved teaching, but this was different. It was more human. It was more interacting with communities. It was a lot of listening.

And so my journey over the past 4 years in building a public health newsletter has been every emotion. It has been rewarding, it has been exhilarating, it has been humbling, it has been very scary, and it's also been quite lonely. I have always told people that I feel like I am in the middle of the forest with a machete, trying to find my way. Mainly, I think this is because this isn't what public health really did; it isn't what scientists are supposed to do. It's not how we get tenure, it's not how we get a Nobel Peace Prize, and, in fact, at least in public health, it's not even how you gain respect from peers. And I think this is the core reason why public health failed the biggest test we've had in the past 100 years: we failed at communication. And so when I got this award, I told my husband I found my people.

It was a huge sigh of relief. And when I started learning more about Dr Walter Alvarez, I even got more excited because our paths are actually pretty darn similar. He is a Californian; I am too. He had a lot of kids, 4 kids; one of his kids actually won the Nobel Peace Prize. My kids are toddlers drawing on walls, but maybe one day. We're both scientists; he's a medical scientist, I'm an epidemiologist, those are close enough. But what he did was bring aware-

ness and advocate for public health, like sanitation and vaccination. He even challenged myths and misconceptions about health and disease, and that is a lot of what I have been doing as well.

And after he retired, he actually even wrote a medical column for newspapers. Maybe, I think, he should have called this "My Local Medical Doctor," but he also had a method to reach the layman, the community. And so this got me thinking. Alvarez broke the status quo in medicine. We need to break the status quo in public health, and it's incredibly important to do that right now. Why? Well, because we are seeing trust in public health declining.

There's been a loss of trust in institutions overall; this has really started since about 2016, across both aisles but mostly Republicans. I could go on for an entire day's lecture on why we lost trust, but that's not the point of this. If we continue this trajectory, the ramifications are going to be dramatic, they are going to be far-reaching, and they are going to be deadly. This will only be supercharged in the years to come given rising skepticism in institutions, given artificial intelligence developments, and even given climate change and the ramifications it has for new public health threats.

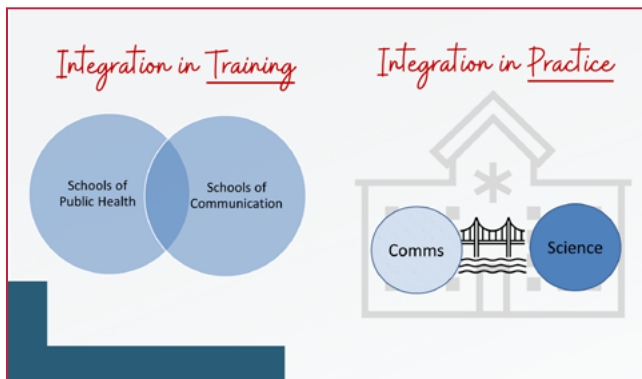
So what do we do? Public health, I think, needs to redefine its role in the twenty-first century. There is a lot to do on this list, but communication touches every single one of these things on this list. We play an integral role in this, and if we succeed, we will save lives. So I wanted to walk you through this checklist and show you, and try to convince you, how communication is an integral part in building trust in public health.

So this is my checklist; there are 5 things. The first thing is to become visible. What does this mean? Well, public health has always had this idea that we work in the background. In fact, we even have a saying that goes "public health is working if it's invisible." Think about seatbelts; we never really think about seatbelts when we put them on. The statistic of 3 million lives saved from vaccines during the pandemic is hardly known. It is invisible when it works. And we have to get out of this mindset; we have to refuse to be invisible.

Katelyn's check-list:

1. BECOME VISIBLE
2. PLACE "PUBLIC" BACK IN PUBLIC HEALTH
3. GET WITH THE TIMES
4. EMBRACE POLITICS
5. INNOVATE

So how do we do that? We just need to start talking, start communicating, and start working with communities and not with each other. Public health scientists, scientists, and medical doctors are really good at talking to each other. It's another pathway taking scientists directly to community.



One integral way to do this is that we need to integrate communication into public health training. I was never trained in scientific communication; it's not viewed as a core. But this is a really low-hanging fruit of how we can integrate schools of public health with schools of communication to leverage all of the advantages both of us have. The other part of this is integration into practice. For many organizations and a lot of local health care departments, it means just creating a scientific communication core. It is recognizing that the leadership needs to recognize that it is an essential part of their mission, it is an essential part of their time, and it needs energy and resources allocated.

A lot of my work, though, and something I've discovered working with the Centers for Disease Control and Prevention (CDC) and the White House, is that a lot of the time there are 2 great teams: there's a great communication team and great scientists. However, the bridge between the 2 has been eroded. If there is a bridge there, it is very difficult to get across due to clearance processes that need to be dramatically thinned. Onerous clearance processes discourage frequent information sharing and inadvertently erode trust.

Second on my checklist is placing "public" back into "public health." Communication is core to this because it

means that it's opening up a 2-way street. As epidemiologists and health officials, we've been doing a lot of telling, telling, telling, and it's important during a pandemic because time is lives. But we really need to stop and listen. And listening is very different than hearing.

Hearing is much easier because it's involuntary and no conscious effort is required. But it's really important to recognize that legitimate concerns do exist in the community, that we have failed in the past, especially with certain groups, and we need to approach it from a place of empathy and not only listen to questions but go actively look for questions. Open a tip line. During my time the last 4 years, I was getting so many questions, emails, and messages that I actually had to start creating a program that could start finding themes in the emails I was getting, so I could help address as many people as possible. And then also to know where people are talking and go to that place, and I'll get to that soon.

Another piece of opening up a 2-way street is also being there and listening during nonemergency times, which is what I call "peace time." In public health, there's always going to be a challenge to communities, so we need to listen to the communities to understand what their concerns are, not just our priorities in public health but their priorities, and this will build trust.

We also need to learn how to translate in public health. One really big challenge during the pandemic was this idea that scientists were saying something and the public was hearing something else. They were apples to oranges. We need to learn how to translate. People do not know what myocarditis means, they do not know what bivalent vaccine means, and they don't have to. But they do need to learn, and they have the right to understand, so we need to think big picture. One quote I love is attributed to Albert Einstein: "If you can't explain it simply, you just do not understand it well enough."

As public health officials, as scientific writers, we have a very deep knowledge in particular subjects, and sometimes the knowledge is too much that we get into these weeds of nuance. But really, scientific communication is this art that is a balance between nuance and readability. And so we need to teach people how to do this as well as partner with them.

Another part of putting "public" back in "public health" is equipping trusted messengers, realizing that sometimes it's not best that the ivory tower is communicating. In fact, a lot of people do not listen to the ivory tower; they don't listen to Katelyn Jetelina on *PBS NewsHour*. What they do listen to is trusted messengers; these are pastors, these are educators, these are physicians. And so we need to help equip these trusted messengers.

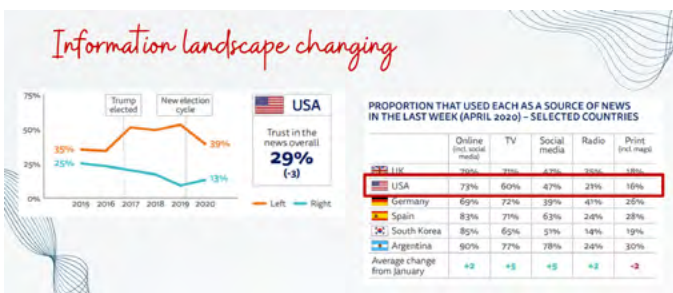
One of the biggest discoveries during my time at *Your Local Epidemiologist*, my newsletter, was I always assumed, in the beginning, that I was talking to Joe on the corner. So, I did a survey, and 77,000 people answered this survey. What

I found was that I wasn't talking to Joe on the corner; I was translating science to trusted messengers: those at the White House, NASA scientists, neighbors, education boards, or physicians. They would translate the information that I provided and spread it to others. And then people eventually got this information in their homes to make evidence-based decisions. This is an example of a small node in this huge grassroots network of information diffusion.

Another part of putting "public" back in "public health" is also to recognize not just what to say but how we say it, to be inclusive, because how we communicate the right information matters. The words we use matter, the tone we use matters, and the details matter.

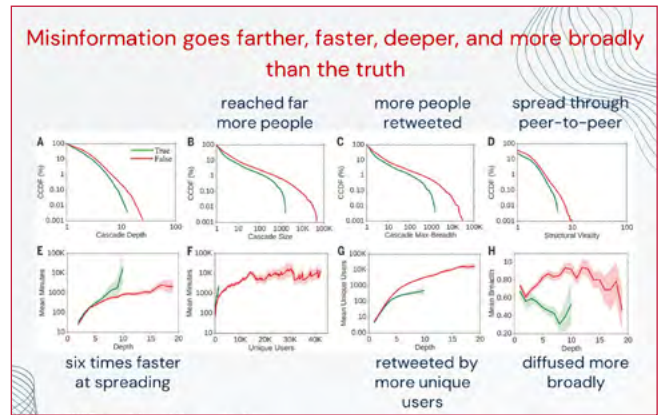
Johnson and colleagues did this fantastic social network analysis early in 2020, around April 2020, right when the pandemic was taking off, and they did a number of computer simulations on Facebook pages.¹ A figure from their article shows the following: red dots are anti-vaccination pages, the blue dots are pro-vaccination pages, and the green dots are undecided, like your Parent Teacher Association. And what this found is many things. One, there's a clear echo chamber: the red dots are clearly separated from the blue dots. But I think even more importantly, the red dots, the anti-vax pages, are more closely aligned to the green dots than the blue dots are. So, pages that explain the benefits of vaccination are largely disconnected from the main battlefield of sentiment. We are talking to each other. We are not being inclusive, we are not reaching out, and we need to change this figure.

Part of being inclusive is, again, recognizing what you say matters, especially to people who are vaccine-hesitant or believe in conspiracy theories. This means we can't be condescending, we cannot be alienating, and we have to be empathetic. That means not using words like "insane" or "dumb" or "whatever." Because all we're doing when we say these words is challenging their worldview, and people will double down because their worldview is linked to their identity. And we need to build new foundations of trust.



Next is that public health needs to get with the times. What do I mean by that? Well, the information landscape is rapidly changing, and we have not kept up in public health. People no longer get their information from the news. In fact, only 30% of Americans trust the news overall. We have social media, and it's a huge part of how people get their news. Over 70%

of Americans find health information on social media. So we need to be in this information landscape.



Source: Voshoughi, Roy, Arab. (2018) The spread of true and false news online. Science

Part of getting with the times is also recognizing mis- and disinformation, false information, and the power it has. This is a study done in 2018, before the pandemic.² They looked at 3 million tweets on Twitter and found that misinformation or false news goes faster, farther, deeper, and more broadly than the truth. False news reached far more people than the truth, was more retweeted than the truth, and spread through more peer-to-peer interactions than the truth. False news was 6 times faster at spreading than the truth, was retweeted by more unique users, and was diffused more broadly. These findings shed new light on the fundamental aspects of our online communication ecosystem, and we need to get up with the times and react to this.

And we are. There are a lot of resources going into this right now, particularly on the federal level. There are bills. The Food and Drug Administration has said they have a plan for mis- and disinformation. We have libraries and schools getting involved by teaching kids about misinformation. We have a proposed zero draft by international Member States to combat misinformation. And if you asked me probably a year ago, I would agree with this. Let's throw everything at this, it's the only way, end of presentation.

But there's always going to be bad actors. There's always going to be opinions, and it's always going to be a game of whack-a-mole. So how do we get ahead of it? I think part of getting up with the times is that we need to prevent it. We need to focus on proactive communication, not just this reactive communication of mis- and disinformation.

What is proactive communication? Well, in crisis communication, as you know, it's "be first, be right, be credible." The biggest gap right now is timeliness with public health communication. Messaging is too slow and too scant to meet the need of the public to make decisions today. Public health officials must get more comfortable communicating quickly, continuously, and with empathy.

We have to anticipate concerns to be proactive. It still amazes me that we took 9 months to create this

life-changing vaccine, and we did not prepare the communication or the education on it on the front end. We needed to anticipate concerns. We needed to answer concerns and questions from a place of empathy because a lot of people wanted to know, “Does mRNA change our DNA?” and we could explain that, and we needed to get ahead of it. Instead, we are playing a reactive game still to this day.

Being proactive is also bringing people along for the scientific discovery ride. What do I mean by that? It’s telling people what we do know, but more importantly, it’s telling people what we don’t know and how we are trying to find an answer. If we are able to do this, particularly during an emergency in real time, people will be able to pivot more easily. You don’t need to wear masks, you do need to wear masks, you don’t need to wear masks if you’re vaccinated, now you need to wear masks. It’s really important that we continue to bring people along for that scientific discovery ride.

Fourth on the list is to embrace politics. There’s a strong desire in science and medicine, and a lot in public health, to avoid politics. But responses, like a pandemic, are human endeavors put in place by people through political processes. It is inherently political. Where communication is so important, though, is how we talk about public health and how we talk about issues. Take, for example, these 2 buzz-words: “inequities” and “harm reduction.” This works really well on one side of the aisle; however, you’ll need to change your frame to reach the other side of the aisle, like a biosecurity threat. Knowing our audience and being smarter about how we talk about data and public health is so important to get anything done in this space.

Last on my checklist is to innovate. In order to reach every single household in the country, we need to build the capacity to communicate more effectively and timelier, and this is done on the backs of innovation. For example, we can innovate using public-private partnerships. Can the CDC, for example, work with a company to better tell their data story? Another example is we need to innovate through entrepreneurship. Entrepreneurship is not necessarily a thing in public health. It has always kind of lived in government. But we can launch creative innovation incubator design studios dedicated to health communication so that we can increase capacity and reach every single household.

Another way to innovate, and this is where I’m putting a lot of my time today and into the future, is innovating in the infrastructure. What do I mean by that? Well, creating something or somewhere for public health communication to live. One of the biggest frustrations I have right now is that everyone’s looking to someone else to figure out public health communication, and that’s because a lot of institutions are permeable to external pressures. For example, the federal government is permeable to politics; they have confusing guidance, and they have a lack of communication.

We also have academia. Academia is very difficult for the community to understand, and it’s also slow, particularly during a public health crisis. And then we also have for-profits. The problem or the challenge with for-profits is that the general public thinks that they’re partisan or at least have conflicts of interest. And to me, my biggest question is, “Where does public health communication live?” I think it’s a space that we can all create together, some space not in these 3 buckets but somewhere else where we can start building trust, being nimble, being responsive—somewhere that is like a community of practice where there’s this information exchange hub that can then be disseminated and leveraged through a number of networks that reaches everyone.



So this is my checklist, 5 things, and this is how we are going to save the world. No, just kidding, but it really is something that public health needs to start chipping away at. And I hope that you can see that communication is an integral part in every single step, whether that’s becoming visible, putting “public” back in “public health,” getting with the times, embracing politics, or innovating. There is a lot of red text on this slide, and it represents all of us. It’s all of us communicators and scientific translators that can help that movement go forward.

So I invite you to insert yourself into any one of these aspects. Ruffle feathers. Help change the status quo in public health. Change ideas, come with big ideas. The only way we improve trust in public health and, ultimately, save lives going forward is by us working together and improving public health communication. Thank you.

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