

# Future of Health Technology Symposium

Presentation by:

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## **Jay Bernhardt**

It's a real pleasure to welcome all of you here today. I'm Jay Bernhardt, I'm the Director of the National Center for Health Marketing. This is a really important and special day and event and it's a real pleasure to have all of you with us today in person as well as those of you who are watching through electronic means, either now or in the future. Today we're here to talk about the future of health technology. Probably there's very few topics as important as this frankly on the national level and on the global level, so it's really important and fortuitous that all of you could be with us today as the CDC really looks at these issues very closely as well and we think really strongly that this is going to dramatically change the world of health, the world of health care, the world of public health, as I'm sure all of you think as well.

I'd like to recognize the sponsors for today's events. The National Center for Health Marketing and the National Center for Public Health Informatics, both of which are part of the coordinating center for health information and service as well as the Office of the Chief Information Officer here at CDC. So again it's our pleasure and honor to welcome all of you today.

I'm going to spend a few minutes explaining a little bit about the National Center for Health Marketing and what health marketing is and also to explain how it relates to health technology and information and communication technology ICT because for some of you that may not be totally obvious. So I'll help explain it. Health marketing is a concept that's largely new to many people in public health and at CDC, so I can't miss this opportunity to help educate and hopefully convert some of you to the concepts of health marketing and e-health marketing. Afterwards I'm going to introduce my colleague, Dr. Robert Martin who is the Director of the Public Health Informatics Center who is going to share with you some similar remarks about their work. First, with the definition, and again this health marketing, people in the business sector, people in IT, people outside of public health, the concept of marketing is a pretty common concept. It's something that's really at the center of a lot of what we do. Again, to people in public health and health protection and prevention, it's a newer concept. This is how we officially define it. The idea of creating, communicating and delivering health information and interventions using customer-centered and science-based strategies to protect and promote people's health. This definition is actually directly based on the American Marketing Association's definition of commercial marketing, and this idea of taking products, in this case CDC's products are our health information, our interventions, our science based, evidence-based information, that is the products that get generated by

CDC and the concept of health marketing is to use marketing science and principles and strategies and best practices to increase the impact, increase the diffusion, increase the uptake of CDC's product. In the sense of what our vision is from a global perspective, our vision is a world where all people actively use accessible, accurate, relevant and timely health information and interventions to protect and promote their health and the health of their families and communities. So again, it's very much of an activist vision, one where information of all sorts is ubiquitous and ready at any times, at all times to impact health decision making; health decision making both enormous decisions we make in terms of whether or not to have a procedure done, whether or not to get a test, whether or not to get a vaccine, which are more obvious health decisions, to the most minute small health decisions such as should I have that cigarette, should I have that cookie, should I have that salad or stop at the fast food restaurant, or anything in between. Those small decisions and the way that information can impact those small decisions in a cumulative way actually is much more likely to have a significant impact on population level health than all the big decision making tools we're all much more familiar with.

If you think about health marketing as a model, and this is a question I'm asked a lot is people say, I understand in principle this idea of a customer-centered approach to health but what do we really mean? I'm going to try to illustrate it today with this model. As I mentioned already, CDC's products, those things that we produce in the field, in the lab, through data analysis, through data collections, all the things the scientists do, all the things that the white coat people do are these kind of products that get generated. Our research, our science, our evidence based advice and recommendations that we make based on that research and science that we do, the surveillance we do, etc. Clearly those are the products, right. Sometimes they're tangible products and materials, sometimes they're more ideas or programs that could be implemented. And if you think those are our products, traditionally the customers for CDC are health professionals. So these are the people who work at the state and local governmental public health level, in all different types of positions whether they're laboratorians, toxicologists, epidemiologists, clinicians and many others, health educators and everything in between. Also key audiences for CDC traditionally are partners, and these remain key customers for our products and we've spent a lot of time and many years improving ways that we might take the knowledge and the science that's generated at CDC and diffuse that or disseminate that to these key customers. But times have changed and the world has become much more flat and consumers now consumer-oriented models, all of you know, are much more in vogue and there's a demand, an expectation you might say, among consumers and among the public for the kind of information and products that CDC generates. So very important customers to us now; also directly are the public including individuals all the way up to populations and every sort of social ecological level in between. Again, in the past, these customers largely received CDC products diffused through our other customers but now we're moving in a model where we're much more likely to have more direct to consumer type of approaches to informing and providing information to these customers. All of these approaches sometimes are called in public health parlance, things like translating research to practice, which in marketing parlance would probably be considered B-

to-B or business-to-business marketing, or health and communication and marketing programs, or campaigns otherwise known as direct-to-consumer activities.

So these are things we've been doing for many years. We're getting better at them, we're learning a lot about how we do that, but there still is a way to go to do it as effectively as we can. A newer concept is the idea of understanding information coming in from our key customers and this is really probably the core concept of effective marketing is taking an audience centered, customer centered approach. Clearly from an ICT point of view, information communication technology point of view, any app today that's worth anything by and large is a very audience-centered app, a consumer-oriented app. In many cases a consumer-generated app or open-source consumer-generated app. So again I'm preaching to the choir a bit but as an agency, as a model of public health, this idea of this incoming information is still something we're learning to leverage and learning to do well. Audience research, formative research. We also call these concepts public and partner engagement and they're things that are becoming much more central, much more important to be doing effective public health work. And then of course increasing our sales force to take the information we provide to them to be more effective with their audiences as well. So this, in very simplistic terms, is the health marketing model and this is what we're working hard within the agency to move toward. If you think about our Center, the National Center for Health Marketing, this is just a small sampling of some of our products and resources and tools. I'm not going to explain all of them to you but clearly things like CDC.gov, our website, are an essential channel in this concept of effective health marketing. We have a consolidated 800 line, CDC-Info, that's an important channel both for incoming information and inquiries as well as outgoing information. Podcasts, as you see at the bottom, the MMWR is a key weekly journal that goes out to health professionals, tens of thousands of health professionals. So again, if you think of all these different types of resources and you think about how they fit in the model, if you can see by the arrows, they fit at different places. Some pieces and some channels touch multiple points of the model. There are some points on the model that have more arrows, some have fewer arrows, but as we move forward as a center and as an agency adopting and moving toward a health marketing model, all of these channels, all of these products and resources we seek to increase the integration between them.

These are our priorities, in essence. Integrating and creating robust customer research and engagement capacity, having integrated and high impact channels in marketing particularly, with a focus on behavior change, so we know that providing information alone - whether it's through a channel like the Internet or web or other personal devices, other things, the underlying goal here is behavior change and we need to make sure we don't lose sight of that because information alone is necessary but not sufficient to bring about the kinds of behavior change we need to improve health, and then ideally with those capacities build strategic and tailored marketing plans that are based on these key things, based on customers, based on audience data, based on the products we develop, and obviously based on the subject matter experts, or SME's as we call them at CDC, who really understand hopefully all sides of this issue, the audience, the products, the science and the communication and marketing as well. So in very simple

terms and in a nutshell this is what health marketing is, why we exist and what we hope to accomplish.

I want to spend another minute or two on e-health marketing, and this is one of the cooler areas of the National Center for Health Marketing. We have a division called E-Health Marketing and they and Janice, who is the leader of that group, Janice Nall, and this is a lot of people who helped make today possible. The goal of this group is really to increase the impact of CDC's science through innovative and strategic electronic communications. It's more than just the Web, it's more than just how do we push things out the door. It's part of this larger health marketing model of a customer-centered approach. The three key principles we think of effective e-health marketing and I think these are threads and themes you're going to hear a lot today when you from the experts and the futurists who talk about where we're going in terms of overall health technology. A lot of these three key principles will cut through a lot of their ideas because these are not unique to us. The idea of personalization, all of the information, all the products can be highly tailored, highly personalized, and highly relevant to all the users.

Presentation again needs to be multi-channeled and ubiquitous. So it's way beyond the Web as I said a few times; it's multiple channels simultaneously, user-centered in an accessible way; not only in an accessible way, any time, any place, but in a personally accessible way. Because accessible doesn't just mean that one can turn it on and get it. Accessible means it's in a way that they can actually get it in front of their eyes and into their head in a way that it can be cognitively processed and utilized in day to day decision making. And then participatory, in a participation approach. Again, we need to move past the unit directional expert model of "we are the experts, we know what all of you need to think and do and we will push this information to you," to a much more participatory model, a Web 2.0 model where we can leverage the knowledge and wisdom of the crowd and the information and the products that are created are stronger as a result of all the contributions of the users.

Here's a list of a small number of the many exciting and innovative things our E-Health Marketing group has been working on just to give you a flavor for it. Again, for many of you these are not brand new concepts but I must say that as a federal government agency, it's incredibly exciting that we're already near the cutting edge as opposed to maybe 10-15 years behind it. So we're really proud of that and we think that we're really committed to staying there and being with all of you as we move toward the future. A few examples up here, the top one is a graphical bug that we spread both throughout the CDC web universe and beyond the CDC web universe during flu season to help increase awareness and traffic to our flu information to encourage vaccine. The middle image is what just launched last week for Valentine's Day, our first foray into e-cards where people could send other people CDC e-cards for Valentine's Day, and with very little announcement and very little marketing and a pretty soft launch, we had more than 2,000 e-cards sent in just a day and a half, which we think is great. And they were not all sent by me. On the bottom here is a screen shot from Whyville, which is an online virtual universe that we've been partnering with and working with along with Second Life

which many of you are familiar with. Whyville is an online universe targeted at tweens. We did a really large program with them around flu vaccine as well where they actually did virtual vaccinations in this online universe. And in the time that this was up, we had more than 134,000 visits to the vaccination rooms in Whyville, so the kids and their avatars in Whyville spent time going into the virtual vaccination room, almost 20,000 users were actually vaccinated and then what they did was the let loose a virtual flu bug in this online universe and so kids who had been vaccinated when this virtual bug came to them, they were immune from it. And those who didn't, it attached to their avatar for a period of time simulating being infected by the flu bug. So we think really a small step, a pilot step, but an exciting step into this concept of social networks and online universes that we think are going to be incredibly important particularly from a health marketing point of view because we know that the more user involved people are, the more emotional, the more personal, the more narrative the information, the more likely it's going to have an impact as opposed to just watching a 30-second TV commercial or just having an expert or clinician say you should be doing this. We know that this approach of e-health marketing is going to have a much greater impact and we're doing a lot of research and evaluation to help document that.

With that I just want to spend a minute or two explaining why we're here today and the reasons behind this symposium and why we think it's so important. I want to reiterate what I said that CDC really is committed. Obviously our overall mission is the concept of protecting and promoting health and we think we need to do that through all means possible. What that means, we are not in any way moving away from our core strategies of great science, great epidemiology, all kinds of communication and marketing and informatics approaches to that but we also think we need to be looking very closely at information and communication technology as a means for improving our impact. We also know, as all of you know, that ICT and its impact on ho accelerated probably behind the curve of a lot of other industries. Certainly behind finance and other commercial industries but we know that it is accelerating particularly around e-health records and other activities like that, that you'll hear more about in a few minutes. And we also know that it's essential to follow these trends and these innovations and for all of us in public health at CDC and throughout the world of public health to be keeping an eye on these things as they're happening, to not wait until we're five or 10 years behind the curve but to be exploring and identifying and watching these things and learning from them as they happen and learning from the people who are here today, the experts, and learning from those diverse perspectives.

So again, if I might leave you with a message and a thought as you hear the rest of the speakers today, we think that prevention is the key. Prevention is the key to a lot of the issues in the health care system today, whether it's the overarching health care system for which trillions of dollars a year are spent on health care in this country, about 15 or 16 percent of the GDP, but only about 5% of that is focused on prevention. So I think for health technology to be successful moving toward the future to really achieve its maximum impact, we need to be thinking about how all these things can impact prevention, reducing the burden of disease and morbidity on individuals, increasing life spans and quality of life. So that's my little thought to plant with you as you hear the rest

of today's talks because I think if we are successful in doing that, we will be successful truly in revolutionizing health through health technology. With that, thank you for coming. This is an image as a teaser to all of you because this is a current potential screen shot of our upcoming revised CDC home page which we'll be launching in the coming months. So we're really excited about the user-centered research that's gone into that. Again, just one of many channels we're focusing on but obviously a really important one. So again, thank you for coming, I really hope that today, and expect today, will be a very interesting discussion.

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