

Female: We invite you to sit back, relax and enjoy today's presentation. I would now like to introduce your first speaker for today, John Clymer, Executive Director of the National Forum for Heart Disease & Stroke Prevention. John, you now have the floor.

John Clymer: The National Forum has evolved from a meeting in 2002 into the recognized convener of public, private and not-profit-sector organizations who share a commitment to improving cardiovascular health. Our convenings often spark cross-sector collaboration that leads to improved health. Today's virtual convening provides a platform for healthcare professionals and public health professionals to learn what can be done to preserve brain health by preventing a stroke, and seek sharing of this information throughout this month of October and throughout the year. World Stroke Day, which is October 29th, raises awareness of the serious nature and high prevalence of stroke and how to prevent it. We encourage you and your organization to use World Stroke Day on October 29th to get your messages and amplify these messages about preventing stroke and the risk factors that lead to it.

I want to very briefly introduce our speakers for today. Their full biographical sketches are in the agenda document, so to save time and get directly to our speakers, I will very briefly introduce them. First we have Dr. Bern Melnyk, who's Vice President for Health Promotion and University Chief Wellness Officer at the Ohio State University, where she's also the Dean and Professor of the College of Nursing. She will be followed by Admiral Betsy Thompson, who is Director of the Division of Heart Disease and Stroke Prevention at the Centers for Disease Control and Prevention.

And she will be followed by Clinton Wright, who is Associate Director of the National Institute for Neurological Disorders and Stroke, and Director of the Division of Clinical Research. Dr. Wright will be followed by Stephanie Mohl, who is Vice President of the American Stroke Association, part of the American Heart Association. And Stephanie will be followed by Dr. Melnyk again and then Mark McEwen. Mark is a journalist, health advocate and stroke survivor. Without further ado, Dr. Melnyk, please take it away.

Dr. B. Melnyk: Thank you, John. I grew up in a small little coal-mining town about an hour south of Pittsburgh, Pennsylvania. I lived in half of a little house. My dad was a coal miner. I was born a optimistic, happy child, and that sense of resiliency came in handy for me when I was 15 years of age. A cold January day back in the '70s,

my dad went off to work, my mom sat down on the couch to pay bills and I started walking up the stairs to take a shower. My mom sneezed, I said, "Bless you, Mom." She didn't answer me. I said, "Bless you, Mom." She didn't answer me. And I turned around to start walking down the stairs to find my mom unconscious, with her head back on our couch. I shook her, "Mom, mom, what's wrong?" She fell over and died of a stroke right in front of me.

I suffered from suffer post-traumatic stress. I didn't even know what that was back in the '70s when I was 15 years of age. The sad piece of my mom's story was that she had a history of headaches for over a year, and my dad kept saying, "Would you please go to the doctor and figure out what's wrong?" Well, she visited her family physician one week before she died, was diagnosed with high blood pressure, given a prescription for a blood pressure medication that my dad found in her purse after she died. So again, prevention, which we are really going to emphasize in this webinar, is so critical. And that a third of patients that receive prescriptions never have them filled. That traumatic day affected me for many, many years, and I'm sure those of you with children really can relate to what it would be like to stroke out in front of your children. So again, prevention is so critical, which I'll be emphasizing later.

So now, I am happy to turn the presentation over to Rear Admiral Betsy L. Thompson.

Adm. B. Thompson: Thank you, Bernadette. And thank you for your story. Good afternoon. My task is to provide an overview of the state of stroke in this country, so I'm going to tell you a bit about where we currently are, highlighting both some of our challenges as well as our successes before I briefly touch upon what we can do to improve the state of stroke. Next slide? For decades stroke deaths have been on the decline. Advances in prevention and treatment have led to real progress and stroke moved from the third-leading cause of death to the fourth, and then on to the fifth in the last decade. But unfortunately we've seen a stall in this hard-won progress. Despite our collective efforts, the decline in stroke mortality has stalled, and in fact we're seeing increases in stroke-related deaths among younger people. This trend is largely attributed to a lack of progress in improving hypertension control, concomitant with increases in diabetes and obesity and lack of improvement in other risk factors, which you will hear about from the next speaker, Dr. Clinton Wright. Next slide?

The risk of stroke and mortality is not spread equally across this

country. We see disparities in stroke mortality by location, my race and by age. Location – you see the map on the left here? You all know probably where the stroke belt is, as depicted here, where the darker the purple, the higher the overall stroke death rate. By race, not only are African-Americans more likely to have a stroke than non-Hispanic whites, but the death rates for blacks are significantly higher than that for whites. Though this disparity by race has decreased over the past decade, overall African-Americans are still almost one-and-a-half times more likely to die from stroke than whites, and the excess risk is even higher for younger African-Americans, as shown on the graph to the right of this slide. In 2017, the death rate for 35-60-year-old African-Americans was more than two-and-a-half that for non-Hispanic whites. And finally, by age, older Americans continue to be at the highest risk for stroke and death from stroke, although as I said, we're seeing alarming upward trends among younger adults. Next slide?

These maps depict the annual percent change in stroke death rates by county, from 2010 through 2017. Blue denotes a decrease and red is an increase. So the darker the blue, the greater the decrease; the darker the red, the greater the increase. The map on the left is just an overview of all adults age 35 and over. The center map shows younger adults – that is, ages 35 to 64, and then the one on the right is the 65 and older. As you can see without studying this very far, there's more red on the middle map, meaning more counties experienced an increase in stroke death rates among the younger than the older age group. In fact, more than half of all counties experienced an increase in the stroke death rate among those age 35 to 64, almost 30 percent of counties experienced an increase in the death rate for those age 65 and older. Next slide?

When we look at it by state, the declines have stalled or reversed in three out of four states, as shown in orange or red respectively on this map. Today, someone in the U.S. has a stroke every 40 seconds. That's at least ten people while I'm speaking and 90 people during this hour. But the real message here is this – that up to 80 percent of those strokes are preventable. But all too often stroke symptoms are dismissed and discounted, causing delays that may lead to poor outcomes and even death, as Dr. Melnyk has so aptly described in her own life. Next slide? One final data slide, and this one looks at two measures – the hospital discharge rate for stroke and the mean age for stroke hospitalizations from 1994 through 2014. I just want to make two points with this slide. First, as shown by the red line, the average age of individuals admitted to hospital with acute stroke has declined by nearing four years over these two decades. And second, stroke hospitalization rates, shown

by the blue bars, have been increasing since about 2007. Now, it's not all doom and gloom, and I do want to tell you a bit about what we know is going right. Next slide?

Through the Coverdell Program, CDC supports nine state health departments to track, measure and improve acute stroke care across the continuum of care. This program's touched the lives of at least one million stroke patients and over seven hundred hospitals, leading to meaningful improvements, a couple of which I'll mention. First, door to treatment times. Not only have we seen the percentage that are receiving IV Alteplase increase from five percent to eleven percent, but the percentage receiving that treatment within 60 minutes of arriving at the hospital increased from 27 percent to 68 percent. The program has also greatly improved collaboration between hospitals, EMS agencies and outpatient services. In fact, over a three-year period, state health departments expanded their partnerships with EMS partners from 27 to 144, and with hospitals from 56 to 202. And CDC isn't the only one supporting vital quality improvement works such as this. In fact, I want to acknowledge and thank the American Heart Association and Get With the Guidelines for their partnership in providing the tool that many of our sites use for their data collection. Next slide?

So we are making some improvements, but clearly needs to be done. So what can you do, what can we do? Improving hypertension control is the number-one priority within our division at CDC, because we know that improving rates of hypertension control can prevent many forms of cardiovascular disease, including stroke. And we'll hear about other risk factors that can be targeted for stroke prevention momentarily. As evidenced by the work of the Coverdell Program and American Heart's Get With the Guidelines, we know that stroke registries and systems of care can improve outcomes, but too often people do not get the potentially life and quality-of-life-saving stroke care they need simply because they do not recognize or response to acute stroke symptoms. So I challenge everyone with us today to make sure their loved ones and their patients if they see them – patients – understand what a stroke looks like and how to respond fast. Thank you. With that I'm going to turn it over to Dr. Clinton Wright.

Dr. Clinton Wright: Hello, everyone. It's a pleasure to be here at this urgent call to action national forum webinar to speak with you a little bit about stroke, stroke risk factors and some of the things that the National Institute of Neurological Disorders and Stroke and the NIH is doing in this area, this very important area. So as has been talked

about to some extent, we have a very large stroke problem in the United States, with 6.8 million Americans known to have a stroke, and we have almost a million new strokes a year. And that represents an increase in strokes that we think, as was pointed out by the previous speaker, will be increasing quite a bit over the next couple of decades. There are risk factors that are under our control if they are known about and they are treated, and it's very important to recognize those. But it's also important to understand that there are _____ sub-clinical or damage in the brain that occurs that we may not be aware of due to stroke symptoms that can appear on imaging that are also risk factors, not only for stroke, but also for cognitive decline and dementia. And nearly half of people more than 65 years of age have cognitive deficits six months after a clinical stroke, but there's an even larger group of people that have silent damage to the brain that is due to the same vascular risk factors that are risk factors for clinical stroke, and it's important to be aware of that. Next slide?

So as you can see here, the stroke incidence increases by age, and there are gender and racial and ethnic disparities. And you can see here, going across the age range from the 45-54-year-old group all the way up to greater than 85, there is almost a linear increase in the risk of incident stroke, and that includes different types of stroke, where 87 percent of strokes are generally due to a blockage and ten percent are due to bleeding into the brain or bleeding around the brain, as in subarachnoid hemorrhage. Next slide?

And here you can see that the ten-year change is – the risk is so clearly connected to the risk factors. So if you look at the table across the bottom, you see that as the number of risk factors increases for an individual, even if the blood pressure is in a relatively stable range – for example, under B, C, D, E, and F, you can see the blood pressures are still all within 138 to 48, which is high blood pressure, but as you add more risk factors for both men and women, the estimated ten-year rate goes up. So it's very important to understand the control of these risk factors and the synergistic effect of these risk factors. Next slide? And the stroke map that was shown in the previous study just illustrates the dire problem in certain parts of our country, where the risk of stroke is much higher, and we call these areas, you know, enhanced heat map areas or the stroke belt, as you can see down in the Southeast. Next slide?

So a number of risk factors are really important. Hypertension is probably the strongest risk factor for both ischemic and hemorrhagic stroke, both in the United States and globally. But

other risk factors are really important as well, including diabetes mellitus, hyperlipidemia, atrial fibrillation, tobacco use and physical inactivity. And recognizing these risk factors and knowing about them and doing something about them is what can really make a difference. Next slide? The NIH has been really invested across institutes, but including the NINDS, in understanding the importance of treating blood pressure. And the SPRINT Study was stopped early, because it was found that controlling blood pressure to a level of less than 120 systolic reduced the risk of the combined outcome of MI, stroke and death, and a trial went on to study cognitive changes and found that although there wasn't a significant number of dementia cases prevented by intensive blood pressure control, mild cognitive impairment was prevented at a higher rate in those with intensive blood pressure control of less than 120 millimeters of mercury. And a sub-study that included MRI showed that intensive blood pressure control lowered the progression of white matter lesions, which are a marker of small vessel disease. Next slide.

The NIH has also invested in a public-facing web presence that helps the public understand what the risk factors are for stroke, and that is called Mind Your Risks, and there are web links available on the NIH website. And the goal of this campaign is to raise awareness that controlling blood pressure in midlife may decrease the risk of not only stroke but also dementia, provide scientific evidence for doctors to discuss this topic with patients, and promote existing blood pressure management tools. Next slide? We also invest at NIH in observational studies that not only track stroke risks and outcomes in different populations and highlight the racial and ethnic as well as socioeconomic disparities and access to care disparities that exist in stroke, but also look at the individual areas, including the individual risk factors and the times to treatment when people do have a stroke. Next slide?

Another thing that's really important to highlight about the last talk is the fact that if you look over the last couple of decades, from 2000 to now, 2020, this decade, you see increases in the risk factors that cause stroke in both men and women, even in the youngest age group – highlighting the importance of identifying these risk factors early before the damage has accumulated to the point where a stroke is very likely to happen. And giving the physician and the care team an opportunity to control those risk factors and work with the patient and caregiver to take proper care of those risk factors. Next slide?

One of the largest observational studies that NIH has invested in is

the Reasons for Geographic and Racial Differences in Stroke, the REGARDS Study, which enrolled more than 30,000 participants across the United States, and you can see the little map on the slide. And those people received in-home evaluations as well as electrocardiograms, and blood samples were taken. And they published several hundred articles looking at stroke and stroke risk and relevant risk factors, and was one of the research advances that was highlighted in 2008 by the American Heart Association. Next slide? The NIH has also invested in clinical trials and the CREST-2 Trial is a follow-up study of a previous study that looked at symptomatic carotid stenosis. This study is looking at those who have a blockage in their carotid artery but have not had stroke symptoms yet, trying to understand whether there is a benefit to surgically removing the plaque with carotid endarterectomy or removing the plaque internally through endovascular approaches, by putting in a stent, compared to intensive medical therapy. And so far we're a little more than halfway through that study and hope to have an answer very soon. Next slide?

Other observational studies that look at different aspects of stroke risk are highlighted on this slide, including REGARDS, which I already mentioned, and then a number of other cohort studies that have focused on stroke risk, and even some dissemination/implementation studies. Next slide? So thank you for your attention, and I will now turn the presentation over to Stephanie Mohl from the American Heart Association. Stephanie?

Stephanie Mohl:

... and thank you to the Professional Forum for convening today's webinar. I appreciate the opportunity to join you. I was asked to share with you some resources from the American Stroke Association that can help to support you and your efforts to prevent stroke and to help patients maximize their stroke recovery. I wanted to start out by sharing a little bit of the marketing research insights that the American Stroke Association has gleaned over recent years that can help inform all of our efforts to protect brain health and prevent stroke. Unfortunately, one key learning that we've found is that many people don't believe that stroke is preventable, although as you heard earlier, up to 80 percent of strokes may be prevented. In fact, only 53 percent of the general public and only 12 percent of stroke survivors and caregivers believe that stroke can be prevented. Similarly, while two-thirds of consumers report having at least one known risk factor for stroke, only one-quarter of them consider themselves at risk. So that's suggesting a disconnect between their actual and perceived risk.

Fortunately, although most people don't expect to have a stroke

and therefore fear of stroke doesn't necessarily seem to motivate them to take steps to prevent one, the desire to have a healthy brain and avoid memory loss and cognitive decline is a motivating factor, particularly for younger generations. And as you heard earlier, it's critically important that we start reaching younger people so that we can head off risk factors and better control risk factors earlier in life, so that we can prevent stroke and cognitive decline later in life. Therefore, for World Stroke Day this year, you'll notice on this slide that the American Stroke Association's focus is centered around motivating high-risk individuals, particularly those with risk factors such as high blood pressure and atrial fibrillation to take ownership of their health in simple, achievable ways by using brain health messaging to drive stroke prevention. In addition to encouraging people to add color to their plate, we're bringing to life other brain health tips, like managing blood pressure, mitigating stress, getting enough rest and the importance of exercising. Next slide, please?

Our American Stroke Association World Stroke Day campaign is underway as we lead up to World Stroke Day on October 29th. Our stroke prevention messaging toolkit, which you can see a picture of here on this slide, can be your resource for stroke prevention messaging and resources. Almost all of the resources that I'm going to talk about over the next few slides can be found in this activation toolkit. So I would encourage you all to go to our website, www.Stroke.org/WorldStrokeDay to find these and other resources. Next slide, please.

So I wanted to talk about a few specific resources that you might find particularly helpful in your work, and I would love to encourage you all to use them and share them in your own efforts. First of all we have a number of infographics that focus on brain health and healthy aging, and include helpful statistics and tips that people can take to improve their brain health. Next slide? Sorry, it looks like the spacing got messed up on this slide. But on this slide you can see we've a number of new resources that we've launched for World Stroke Day, focused at reaching consumers, that we wanted to highlight for you. In particular we have a short, 30-second video which you can find on our World Stroke Day landing page, that includes some helpful tips that people can take to prevent a stroke and maintain a healthy brain. We have also developed a new infographic that focuses on the link between high blood pressure and the increased risk of stroke, that you can see pictured there. And it talks about the importance of managing high blood pressure. As with the CDC and the NIH, the American Heart Association and American Stroke Association are particularly

focusing on high blood pressure as the most significant modifiable risk factor for stroke. Next slide, please.

I also wanted to share with you a number of new blood pressure resources. As you may know – hopefully you know – the American Heart Association and American Stroke Association have partnered with the American Medical Association and the Ad Council on a campaign, launched in October of 2017, to encourage and empower those who've been diagnosed with high blood pressure to manage that blood pressure better, and to work with their doctor to develop a plan to do so. That campaign is particularly aimed at African-Americans and Hispanic/Latino Americans who have high blood pressure, but the resources are relevant to the population more broadly. And what I wanted to share today is that we have just recently re-launched and optimized our Ad Council campaign with a new look and feel and some new additional resources. So we've revised the approach that we were taking. The first iteration of the campaign was pretty serious. We wanted to get people's attention and let them know that even high blood pressure numbers that didn't seem particularly high, such as in the example that you see on the screen of 150 over 90, can in fact lead to stroke, heart attack and even death.

Now, after a couple of years of having that creative in the marketplace, we're focusing on a more hopeful and optimistic messaging. So we really want to inspire and empower people to take steps to improve their life by managing their blood pressure. We know it's hard. We don't want to guilt people or shame people into taking action, but rather encourage and empower them. And we want them to know that we have resources to support them in that journey, and that even small steps can make a big difference in reducing blood pressure. So you can find the new campaign creative and resources at our newly re-launched Ad Council website. It has a new website address as well, ManageYourHBP.org. Next slide, please.

We are also focusing on atrial fibrillation as another important and modifiable risk factor for stroke. So as you heard from Dr. Wright, and as you can see on the slide, there's an estimated two-and-a-half to six million people in the United States that have atrial fibrillation and that number is increasing as our population ages. And as I suspect many of you know, a person with AFib is five times more likely to suffer a stroke than someone without. So it's critically important that we help them to understand that link, and more importantly, help them understand that even though they may not be experiencing serious or visible symptoms as a result of their

AFib, that they need to take that condition seriously in order to prevent a stroke. So we are working to educate patients as well as healthcare professionals on the signs and symptoms of AFib. You can see some of the creatives that we've been promoting through our social media channels, really trying to elevate the link to the danger caused by AFib.

So there are a number of resources that you can find on our website. There's a digital checklist and an interactive brochure that are both available for patients and consumers, as well as a podcast series that focuses on our atrial fibrillation guidelines for healthcare professionals. Next slide, please?

I also wanted to make sure that we don't overlook stroke survivors in our efforts to prevent recurrent strokes. So as many of you are likely aware, one in four strokes that occur in our country are actually recurrent strokes, and so it's very important that we also empower stroke survivors and their caregivers to take steps to prevent another stroke. So we have launched a number of new resources. The first one is a checklist for health professionals that helps guides them in their conversation with their stroke patients and their family members about how they can prevent – the steps that they can take to prevent another stroke, and what the guidelines say about each of those risks. And then the second resource, shown on the right, is an infographic that is focused at stroke patients and caregivers, that also educates them on the steps that they need to be taking to make sure that they are preventing a second stroke. We also distributed 5,000 hardcopies of these resources to physicians and other healthcare professionals at the American Academy of Neurology Conference earlier this year and through our American Heart Association and American Stroke Association Quality Improvement field staff throughout the country, in May. Next slide, please.

Unfortunately, despite our best efforts, there will continue to be strokes that cannot be prevented, and there will continue to be a need to support stroke survivors and their family caregivers in their rehabilitation and recovery from stroke. So now I'm going to shift gears a little bit and focus on some of the resources that are available to you to help support stroke survivors and their families in that recovery journey. Once again we have a messaging toolkit that's available on our website to serve as your resource for a lot of the things that I'm going to be talking about, and that include hopefully helpful, valuable stroke rehabilitation and recovery resources. As I'm sure all of you know from your work in stroke, oftentimes stroke survivors feel that their stroke has taken a part of

themselves away. Post-stroke depression, anxiety, fatigue, frustration and discouragement are common and can undermine compliance with rehabilitation and secondary prevention efforts. And unfortunately, non-white patients referred for rehab are even less likely than white patients to receive it. So all of the tools and resources that we've developed are intended to be simple, hopeful and empowering for survivors and caregivers. Next slide, please.

In September we launched a number of new resources to help educate about the importance of rehabilitation and complying with the rehab regimen recommended by physicians or healthcare professionals. We have a new addition, *Stroke Connection Magazine*, that focuses on stroke rehab and includes lots of helpful articles and stories about what the elements of a successful rehabilitation are. We also have a new video version of our Making Rehab Decisions Guide. This is a short video that helps to educate stroke patients and their family caregivers about why rehab is important and how to choose the best, most appropriate rehab setting to meet their needs and to encourage them to take an active role in choosing and participating in rehab. Next slide, please?

John Clymer: Stephanie, we have 20 seconds left.

Stephanie Mohl: Oh, I'm sorry. I was actually on my last slide. These are some resources for healthcare professionals – as well as the next couple of slides are some additional resources that I wanted you to be aware of. Thank you.

John Clymer: All right. And now, Dr. Bern Melnyk will introduce us to a new tool.

Dr. B. Melnyk: Unfortunately we still dominantly live in a sick-care healthcare system. And we really need to make a paradigm shift to more of a well-care system, where prevention is the key part of everything that we do. So technically, yes, cardiovascular disease is the number-one killer in this country. But, if we consider all causes of death and disease, it's really behaviors that are the number one killer. That's the good news, because behaviors are under our control. The not so good news is people often don't change their behavior unless a crisis happens or their emotions are raised. And that's why stories are extremely powerful to motivate behavior change. As we will see on this slide, I'm very serious when I give the advice of, "Beware of your Chair." If we sit three or more hours a day, research shows that increases our cardiac risk by 30 percent. So we need to move more and sit less. Next slide, please.

Every day we make behavioral choices that influence our health and wellbeing. You might think I fabricated this slide, but this is a real fitness facility in the state of California. And we have a choice, to walk the stairs or take the escalator. A group of psychologists studied how many people during the course of a day decided to take the steps instead of the escalator to go workout at the gym. Their findings? Only two people a day. So again, it's the choices that we make behaviorally that will often influence the health outcomes we have. Next slide, please. You heard my story at the beginning of this webinar. My dad also had a heart attack when I was 19. So I've got terrible gene. I could get up every morning and say, "I'm going to eat what I want to eat today. I'm not going to engage in physical activity." But research supports more than our genes, our social circumstances or the healthcare we receive, it's really our behaviors that will largely determine whether we die a premature death or not. Next slide, please.

So the evidence and research also indicates that stress and depression are associated with cardiovascular disease. Unfortunately we don't routinely assess stress or give tips on how you can cut stress with just five deep breaths in primary care practices all throughout the United States. So learning some cognitive behavior skills to deal with depression and stress, as well as how to be more mindful, so we worry less, are really important strategies to decreasing stress and depressive symptoms, which we know affect about one in five Americans. So based on the best evidence – best slide – if I could give you an evidence-based recipe on how to prevent heart disease and stroke, based on research, I would tell everybody, just engage in 30 minutes of physical activity five days a week. Eat five fruits and veggies a day. Don't smoke. If you don't drink alcohol, don't start. But if you do, drink in moderation, which is one drink a day if you're a woman, two a day if you're a man. If we add getting a minimum of seven hours of sleep a night and regularly practicing stress reduction, we will prevent stroke and chronic disease at an even higher rate. Next slide, please.

The CDC did a study a few years ago that showed, however, only six percent of Americans are engaging in these five leading health behaviors. So again, we need to tell more emotional stories to motivate people to make behavioral change. Next slide. So lastly, we have put together a stroke prevention checklist that includes managing your blood pressure and cholesterol, knowing your blood sugar, not smoking, getting physically active – even eleven minutes of physical activity a day reduces our risk for cardiac disease. Limit alcohol and reduce stress. Finally, remember to act

fast if experiencing facial drooping, arm weakness, speech difficulty, it's time to call 911. So I would like to ask all of you – next slide, please – on the webinar today – we know it takes 60 days, on average, to make a behavior change. I encourage each and every one of us today to focus on just one of those preventive lifestyle behaviors that I just outlined. Commit to it, write it down, put it by your computer, where you brush your teeth everyday. Because these visual triggers help us to continue to make a behavior change. Lastly – next slide –

This is my family – my three beautiful daughters, my two grandsons. We need to all get a reason to engage in prevention and healthy lifestyle behaviors. These are my reasons. And I ask you to think about, if you're not doing good self-care for yourself, who are you going to do it for? I didn't have a mom around to see me graduate from high school, college or go on to have my three wonderful daughters. If not for yourself, do it for people who love you, who want you to be around for a really long time. So with that, I'm going to pass the presentation to Mark McEwen, who's going to tell his story.

Mark McKewen:

Thank you, Dr. Melnyk. I am a stroke survivor. And if you ask survivors about their stroke, the day they have it is like a birthday – it's a day you never forget. Mine was November 15th. I never forget that date. For all survivors, there is before the stroke and after the stroke. I'll tell you a bit about my before. I was a rock & roll disc jockey. I was on CBS in the morning for 16 years – weatherman, Oscars, Grammys – anchor for a while. Here's the thing, also. You've heard a lot about hypertension? I had high blood pressure, but everyone I knew in news has high blood pressure. So instead of going to take care of that, you thought that was part of the gig. And as we all know, no, it's not. So I went through all that, carried the torch, interviewed entertainers and singers and all that, and then I came to Orlando, Florida and worked here for a while, had my stroke on a plane 3,000 feet up. I didn't know what it was. Before I had a stroke, I knew nothing. Now I know enough that could fill a room.

So when I came down it was wheeled through the airport by the skycap, who left my curbside by myself, to die. And a guy, who was heavy, smoking a cigarette, came out of the baggage claim to smoke that cigarette, and we all know now that smoking and heavy are two no-nos. That guy saved my life. That guy took my cell phone, talked to my wife, who said, "Dial 911, dial 911!," and off I went to the hospital and my journey began. I was in a coma for two days, intensive care for a week, hospital for a month, rehab for a

year. Lots of cardiologists don't refer patients. You don't normally hear "lucky" and "stroke" in the same sentence, but I was lucky. I went to a hospital. And so when I got out, after a month, I had this rehab in front of me. And I had an ischemic stroke. I could not use my dominant side, my right hand, as well as I did before. So I had to go learn to walk and talk and swallow again. Halfway through doing exercises – you have to do your exercises – I came from the Y today. I work out about half an hour, five or six days a week. I can't run like I used to, but I walk on the treadmill quite fast at an incline. You have to have exercise in your life to keep those stroke bug-a-boos at bay.

When you're younger you have armor around you. As you get older, that armor gets thinner and thinner, and you have to help that armor protect you. Exercise does that. Also, post-stroke, I've lost 45 pounds since when I was on TV. I'm a vegan. I try to eat healthy. Again, if you told me I could never eat a chocolate chip cookie again, I'd eat every chocolate chip cookie I could find. The thing is, moderation. You heard that also today. Everything in moderation. If you have cookies today, do not have them tomorrow. I rule I tend to live by is trying to remember the last time I had something like that. If I can't remember, go ahead and have one. Do I miss Five Guys? The answer is, yes. I never really ate fast food, so Micky D's and Taco Bell and those guys aren't on my radar. Again, post-stroke, it's a different world. You see, now I see people who are heavy and smoking and I think to myself, "That's not good. That's not good." You're supposed to, as you get older, help yourself to do the right thing. Help yourself to be healthy.

When I speak around the country, when I tell people, when I see stroke survivors – it's like, to the person who brought me there to speak, I tell them, "I'll be right back." I go over to the survivors and it's like coming home. Also, I want people to say, "If he can do it, I can do it." You cannot give up. You cannot just say, "Heck with it," and go on. You can't do that. I wouldn't wish a stroke on my worst enemy. Prevention is very key. And believe you me, as a guy who's been through a stroke, you don't want to go through a stroke. Trust me on that. So, if I can wrap the whole thing, I say, take care of yourself. Nudge your cardiologist, if you've had a stroke, to send you down the path that will help you. And also, when you go down that path, make sure you do what has to be done to help yourself. It's a new world after my stroke, but guess what? I'm still here.

John Clymer: Mark, thank you very much for sharing your story, your personal story, not only about what you went through when you had a stroke, but about the importance of rehabilitation and what you learned and how you continue to apply it. And the fact that that year that you spent in rehab has made a huge difference in your life since the stroke in your ability to continue to be independent and continue to be as active as you are. And we appreciate, as part of that activity, your sharing not only your story but also the call to prevention that you just issued. Thank you.

Mark McEwen: Yeah, you're quite welcome, John.

John Clymer: I'm going to ask Dr. Thompson to tell us briefly about the connection between high blood pressure and stroke, and steps that practitioners can take to help people in their practices and in their communities better control their blood pressure and prevent stroke.

Adm. B. Thompson: Thank you. Before I do that, I do want to at least mention overall cardiac rehabilitation – although it sounds like he went through a process that was very useful – is all too often not used. Overall. Not speaking about stroke in particular, but talking about for all indications for which cardiac rehab can be useful. People are only referred when they meet the qualifications under Medicare about 20 percent of the time. 20 percent. And that's just getting referred. That doesn't mean they show up or participate in the number of sessions that are needed to actually make it effective. So I just wanted to put in a plug for cardiac rehab more broadly. For those of you who may not be as familiar with that, or maybe realizing you could stand to learn more, I would direct you to the cardiac rehabilitation change package that our Million Hearts Team put together, along with the American Association of Cardiovascular and Pulmonary Rehabilitation. You can just Google "Million Hearts Cardiac Rehabilitation Change Package" and you'll come up with that.

So let me just tell you a little bit – take an opportunity. When it comes to hypertension control, you know, in this country, only 48 percent – that is less than half of the people with known hypertension have it under control. And then of course there's other people that aren't even aware that they have hypertension. And as you've heard from several of us, this is one of the biggest risk factors and one of the places we could have the greatest impact – not just in stroke, but in a number of serious outcomes. But in stroke in particular. So we have to do better at hypertension control. The really tragic thing is, we know what works, and we know that in clinical settings, whether it's a rural practice, a small

community health center, a large integrated health system with millions of members, we know that if you pay attention to a few things, you can get that control rate up from below 50 percent to 80 percent or over 90 percent.

In fact, we have Million Hearts hypertension champions, who have shown across the country that they can get above 80 percent – that’s the threshold to become a champion – by focusing on a few things. And one of them is team-based care – and I don’t have time to go into that in detail – but that really is expanding the definition of “team.” It’s not all on the clinician to assess, to arrange treatment, to even change treatment protocols. It relies on community members as well – community health workers, in some cases, and community clinical linkages. Because most people spend a very small amount of their time in a healthcare setting. They spend the vast majority of their time out in the community, where there are actual resources that can help. And then the third is meaningful use, in the true sense of that term, “meaningful use,” of electronic health information. Because if you don’t know how well you’re doing with something like hypertension control, you have no way of knowing what you can achieve.

I will say I did a lot of practice improvement in one period of my life, where I went into practices who were just beginning to use electronic health data in a more meaningful way. And to a person, they always overestimated how well they were doing. Usually by a factor of two. You know, thinking they were at 80 percent when they were at 40 percent. And that’s not because they’re bad actors – that’s because we all want to do well and we try our hardest. But without good, reliable information, it’s very hard to know. So I’m going to stop there, John, and turn it back to you.

John Clymer:

Thank you, Dr. Thompson, and thank you very much for those key points. I will briefly plug again the cardiac rehab change package, to which Dr. Thompson referred, and the hypertension control change package. Both of those are available on the Million Hearts website. So now I want to thank everybody for joining us – all 118 people who joined today’s webinar live. And to our great presenters, who represent national foreign member organizations – thank you for sharing your information and programs, and very importantly, your stories. Please watch for information about the posting of the recording of this webinar, and I want to encourage you to register, if you haven’t already, for the National Forum’s annual meeting, which will be Wednesday, October 30th, in Washington, D.C. And if you go to the National Forum homepage you will see prominently displayed a section on the annual

meeting, and you can click there for complimentary registration for the meeting. With that, we are adjourned.

[End of Audio]