Vital Signs Town Hall Teleconference
Heart Age and Addressing Cardiovascular Disease Risk:
The Role of States and Localities
September 8, 2015
1:00 pm CT

Coordinator: Listen-only mode until the question-and-answer session. If you would like to ask a question today, please press star then 1 on your touchtone phone. You will be prompted to record your first and last name.

The conference is being recorded. If you have any objection, you may disconnect at this time. Now I'll turn the call over to your host Dr. Judy Monroe. Dr., thank you. You may begin.

Judy Monroe: Thank you. Good afternoon, everyone. As you heard, I'm Dr. Judy Monroe. I direct the CDC's Office for State Tribal, Local and Territorial Support. I want to thank everyone for your patience this afternoon while we were waiting for folks to get logged into the call.

And I'm certainly glad that all of you have joined us today. We will be discussing the latest *Vital Signs* report on predictive heart age and racial disparities in heart age among US adults at the state level.

So before we get started, I do have some housekeeping details. You can go online today and download today's PowerPoint presentation so that you can follow along with our presenters. The web address for the - finding the PowerPoint presentations is www.cdc.gov/stltpublichealth -- all lower case, one word. That's S-T-L-T public health, all one word.

Look to the right side of the page for the *Vital Signs* teleconferences link, and that's where you'll find the PowerPoint, or you can Google CDC *Vital Signs*

Town Hall and click on the top link and that should get you there as well. On the same webpage, you can access the bios for today's presenters and the audio recording and transcript. Those will both be available next week.

There will be time today for questions after our presentations. So if - and you can actually get into the queue at any time to ask a question. So just press star 1 and say your name when prompted.

So back to our topic for today: Heart Age and Addressing Cardiovascular Disease Risk, the Role of States and Localities. We are going to hear from four colleagues today.

First we will hear from Dr. Quanhe Yang, a senior scientist in the Division of Heart Disease and Stroke Prevention at CDC's National Center for Chronic Disease Prevention and Health Promotion. He will talk about the findings in this month's *Vital Signs* report.

Then Melanie Rightmyer will present, and she is the health systems program manager for the Chronic Disease Programs Branch at the Alabama Department of Public Health. She will discuss the secret to developing a statewide blood pressure protocol.

And then she will hand the call over to Laura Oliven, the tobacco control manager at the Minnesota Department of Health. She will then talk about addressing health disparities through innovative smoking cessation strategies, and then she will go ahead and turn the call over to LorieAnn Wilkerson-Leconte, who is a heart disease and stroke prevention coordinator at the New Jersey Department of Health.

She will discuss how health departments—how her health department has used health system interventions in their efforts to control high blood pressure. So at this point I will turn the call over to Dr. Yang.

Quanhe Yang: Good afternoon, again. Thank you for joining this powerful teleconference about the predictive heart age and the racial disparities in heart age among US adults at the state level. First I'd like to thank all the authors and many others who worked very hard on this study.

Next, please. One in every three Americans die from cardiovascular disease, CVD. It is the number one cause of death and kills nearly 800,000 Americans each year. About 150,000 Americans who died from CVD in 2013 were younger than the age of 65. About one in every six healthcare dollars is spent on CVD, with a total cost each year of 320 billion.

Next, please. Over the last 60 or more years, many studies identified a handful of major CVD risk factors, and the Framingham Heart Study is the first longitudinal study of heart disease and stroke in the United States.

Among those identified major cardiovascular disease risk factors, some of them you can't change, such as increasing age, your family history, but major cardiovascular disease factors that are manageable or modifiable, including, for instance, high blood pressure, high blood cholesterol, smoking, obesity, and healthy diet, physical inactivity, and diabetes. Studies suggested that more than 75% of heart disease and strokes could be prevented or postponed through the lifestyle changes and therapeutic treatments.

To help with the CVD prevention and management, many studies have developed the CVD prediction model to estimate a patient's five or ten-year

risk of developing cardiovascular disease based on the person's cardiovascular disease risk factor profile.

However, those predicted absolute risk, such as ten years' risk of developing heart disease is an epidemiologic concept but there may be difficulty for some members of the public to integrate. And its usefulness is motivating lifestyle change are inherent to recommended treatment may be limited. More importantly, if used, may provide false assurance among the younger persons.

Next, please. In 2008, Framingham Heart Study published the general cardiovascular disease prediction model and they introduced the new concept of a heart age. What is heart age? Heart age is the predicted age of the vascular system of a person based on his or her cardiovascular disease risk factor profile.

The comparisons between the heart age and the actual age represent an alternative and simpler way to express a person's risk for heart attack and stroke. The closer of their heart age to their actual age, the lower of their risk.

Next, please. Using the information from the Framingham Heart Study and data collected from every US state in the Behavioral Risk Factor Surveillance System 2011 and 2013, this *Vital Sign* provides first national estimates for heart age, identified differences between the heart age and actual age, and examined the racial, sociodemographic and state-level disparities in heart age among US adults ages 30 to 74 years, 30 to 74 years without history of cardiovascular disease.

Next, please. We found that most US adults without heart disease have a predicted heart age that is older than their actual age. Actually about 69 million adults ages 30 to 74 years old have a heart age that is five or more

years older than their actual age. That is about as many as the number of people living in the 130 large US cities combined.

However, the US man has a heart age of about eight years older, US women five years older than their actual age. One in two men, and two in five women have a predicted heart age of five or more years older that their actual age. African Americans have a heart age on average 11 years older that their actual age.

Next, please. You can see from this map there are significant geographic differences in average heart age across states, with the heart age typically higher in the southern portion of the United States. The average differences between the heart age and the actual age was lowest in Utah for men and women and highest in Mississippi.

Next, please. So what we can do, everyone can help by lowering your heart age, taking steps to improve it. A little change can make really big differences. Doctors and other healthcare providers can calculate heart age among the patient population, talk with the patients about what their heart age means, and work with patients on one or two selected risk factors to help in lower the heart age.

Next, please. Communities and health departments can help by using easily understood communication materials to promote how to lower heart age and reduce the risk of a heart attack and stroke, promoting safe walking areas, access to healthy food in communities, addressing tobacco use, such as marking quit line and tobacco-free area, increasing the price of the tobacco products, running the hard-hitting, anti-tobacco ads, partnering with the hospitals to identify and address healthcare issues in their community.

Next, please. So these are the other resources for the heart disease prevention, and you can log in for further information.

Next, please. So this heart age *Vital Sign* is truly a teamwork. Many people from Division for Heart Disease and Stroke Prevention, *Vital Sign* program, members of the office, and many, many others have worked very hard on this heart age *Vital Sign*. Thank you.

Judy Monroe: Great. We'll move to Melanie Rightmyer now.

Melanie Rightmyer: Yes thank you. That was a great summary, and there's a lot of work to be done that we can still do to help this situation get better and improve.

In Alabama, I wanted to share with y'all a particular project we've been working on for the last year and a half that kind of came to fruition in September of this year. And it's basically the secret of developing a statewide blood pressure protocol. If you refer to Slide number 17 on your master slide set, I'll begin there. So the bottom line is you can't do any of this by yourself. You have to build collaborative partnerships and learn how to work together.

Over the past two years, we've started reaching outside of the public health department and the state health department so that we could start discussions and interactions with the private sector. Even though this is a slide filled with all kinds of partnerships, the main thing I wanted you to realize on this slide was the fact that it's always very important to come together, do some face-to-face meetings, implement grant agreements, find where you can, you know, overlap each other and help each other out.

You may just need a memorandum of understanding, memorandum - internal memorandum of understanding, and things of this nature, but it's always good,

especially nowadays to have a data-sharing agreement. So we have added those types of things to our partnership, and we're still in the middle of processing some of that.

Next slide, number 18, the secret, now how do you get physicians, nurse practitioners, researchers, academia, pharmacists, all these folks together to agree on a blood pressure protocol or a blood pressure algorithm to use. And, you know, I mean how in the world can we do that when the JNC7, 8, you know, all that was going on at the same time.

So we still pushed our sleeves up and decided we would develop the blood pressure task force of a specialized group to take this on, take this challenge on. Slide 19, the next slide, is our SWOT. I'm sure most of you all have heard of this. It's where you take your strengths, weaknesses, opportunities, and threats.

So we sat down face to face on a quarterly timeline to work through these strengths and weaknesses, and we wanted to summarize the difference between JNC7 guidelines and JNC8 recommendations. In fact we were here locally even confused, even cardiologists, you know, are these the new guidelines, this JNC8, or what's going on.

And then when they—when the minority view came out, it was like well who these are these professionals, what do you mean, not everybody was in agreement on JNC8. So we had several special speakers from the American Heart Association.

We found a lot of support from ASTHO, the Association of State and Territorial Health Officials, and CDC alike and the Million Hearts project so that we could really present some quality—we even flew some folks in to

Alabama and allowed—had them present to our nurse practitioner groups, our coalitions, our physician groups, so that we could come together and figure out a statement of what we actually did agree on. Now that took some time, but we did get there.

On your Million Hearts website the—hold on—on the Million Hearts website, there are several tools and templates, especially the template on the blood pressure protocol that can be changed up. There's several helps there that I just wanted to refer folks to because it gives you a lot of places to start if you're trying to take a group of clinicians and walk them through this.

Okay on Slide number 21, Alabama's blood pressure task force, as I mentioned, this was developed about a year and a half ago. And we wanted to take attendance. Have we really heard from everyone? Who's missing? Can we, you know, who is included in this decision process and who's voice are we hearing, and are we hearing everyone?

And it was actually identified at that meeting that our cardiologist had actually retired. We knew that, but we had not realized he never gave us anything in writing or any comments about the protocol and algorithms, so we stepped back and recruited another group of cardiologists so that that group was represented. We also noticed that the pediatricians were missing and the pediatric groups in Alabama.

So even though we focus on age 18 and above, we still wanted to hear from them and have them participate on this bigger task force. And that's another story because it's exciting because they have figured out a blood pressure algorithm and protocol for pediatrics and has been working closely through the facilitation of the family practice physician. So that's another cool story.

Can we actually tell the clinicians they need to use this? Well no. And as a public health department, it's just been, you know, the past couple years where we've reached out into the private sector and we're breaking down our silos, and able to talk to the other groups that are actually living it and working in the communities and working in the federally qualified health centers with our people at risk.

So we didn't want to, as a blood pressure task force, we wanted to make sure everyone's voice was heard. We didn't want—we knew we could not say, "Okay, this is the protocol everybody needs to use in Alabama." We felt like a disclaimer was needed, so we've added that. It’s on a slide on down in a minute.
And we added that because we wanted to make sure people understood that we expect you as a clinician to use your common sense to look at each patient as an individual and accommodate their needs accordingly and adjust. But this is just pretty much a guideline or tool that they can use to help sort through some of these challenges and confusions.

So the implementation is what we're in the middle of now, and what should clinicians do differently tomorrow? Well it's like we had asked Dr. Frieden last year if he could—from CDC—if he could share with us an exact blood pressure protocol that he thinks is like the best. And I really appreciated what he had to say because it really made the most sense, that just make blood pressure protocol a priority.

It doesn't really matter which one you use, which specific tweaks you do to make it your own or make it your clinic's, but you definitely need to make blood pressure protocol a priority so that there is a systematic and evidence-based way to approach blood pressure control. Looking for high blood pressure in every patient.

That goes back to Dr. Frieden's—you're all probably familiar with this—this little comment. He always says, "Look for them hiding in plain sight." And they really do. Patients with high blood pressure many times are sitting right there but not running with a diagnosis of hypertension. For—maybe it because of white coat syndrome is what they're always saying or maybe they've just got so many other things going on, they're not focusing in on that. But it is an important thing to do.

Include your non-physician team members. Self-monitoring of blood pressure. There's—boy, there's a lot out there with the American Heart Association: “Check. Change. Control.” A lot of different programs where that's showing research is very beneficial in self-monitoring.

And that's also including let's take a blood pressure the right way, with the right technique, using the right monitor, and then you'll be more apt to receive reliable readings. Because it's kind of scary to think that you're going to be changing up medications and treatments and titration of medications on readings that are not reliable. So that gives you a lot of food for thought in regards to that.

Using health information technology is a whole other talk on itself, but just realizing that, you know, we have to make it a priority, and that's where you start.

Slide 23, share success. Others do want to know if talks like these that we're sharing in now and trying to get the word out. And the American Heart Association was able to publish on their “Check. Change. Control.” national blog about the blood pressure protocol and the implementation here in

Alabama. So that's been very helpful too. So don't forget to reach out to some other folks that can help get that word out.

Now on Slide 24 you only have Page 1 of a two-sided blood pressure algorithm. The next couple slides I just want to show you the details. It's too detailed to really go over, but this story, Slide number 24, is what our health department has agreed to implement as far as a blood pressure algorithm.

We have clinics in every local county health department across the entire 67 counties across the state. Our nurse practitioners are typically family practice nurse practitioners trained, but they do women's health and women's planning, so they really don’t interact a lot, or at all, in primary health care and management of blood pressure and those sorts of things, although they've been increasing protocols and policies and putting things in place so that how high blood pressure connects and obesity connects back to birth control issues.

They have been getting more involved, but we are piloting some areas to where we had to come up with a blood pressure algorithm related to implementing this across the state through our nurse practitioners. In this particular case on - at the top, you'll see they've defined stage one and stage two hypertension.

Because of the lack of practice that these nurse practitioners have with primary care, they wanted to make sure there was no doubt at all. And that really mimics the one that's on—connected back to American Heart Association.

And then Page 2 I wasn't able to include, it wasn't ready yet, of this algorithm includes a very specific listing of medications and titration of those medicines. So it's going to be a great tool to use here, and our nurse practitioners are real

excited. And they were able to actually get extra training, and they're going to have additional training on this blood pressure protocol as well.

The next slide, 25, is the one that our Alabama blood pressure task force developed and have implemented. Our—tomorrow our website will be live on adph.org/cvh and you'll be able to see the blood pressure algorithm page, the task force page with all these updates on it.

The second page on Page 26 with that includes lifestyle modifications that was taken right from the JNC7 guidelines. Also we made—one of the disclaimers we said for our algorithm is the fact that we will continue to review up-to-date research and evidence, and we'll be making changes as necessary so that everything will be updated with the latest information available.

So that's kind of the—it in a nutshell. The federally qualified health centers, or the Alabama Primary Healthcare Association, I met with last week. And they are adopting the last one that you see. But like I said before, it's just a matter of needing to adopt a protocol of some sort to give you some guidance to go by that's evidence-based.

Now we're going to hear from Minnesota Department of Health, and Laura Oliven.

Laura Oliven: Good afternoon. It's my pleasure today to talk to you about the Minnesota tobacco prevention control efforts to address health disparities through increasing access to cessation.

I'll begin today on Slide 29. So we're very lucky here in Minnesota, as we are ranked among the top ten states in the nation in America's health rankings by

the United Health Foundation. We're currently ranked number six, and we also have historic lows and use in adult smoking rates thanks to comprehensive clean indoor air, a high cigarette tax, as well as extensive work by grantees at the local level.

Next slide. However, it's clear that our work is not done. We remain very concerned about significant health disparities in our populations. The Minnesota Department of Health has elevated health equity as a significant priority through our advancing health equity report, which can be found on the Minnesota Department of Health website. Note in this slide the disproportionately high American Indian and African American premature heart disease death rates.

Next slide. We're equally concerned about the high rates of smoking in many of our population groups. Here again, our American Indian and African American populations experienced disproportionately high rates of tobacco use, as well as many other groups.

Recognizing the link between tobacco use and heart disease and the impact of smoking on heart age and the similarities in the population who have heart disease and use tobacco, we were asked to highlight the ways that we're working to promote cessation among smokers.

Next slide, please. One way we address health disparities and promote health access is by offering a comprehensive quit line system. In Minnesota, everyone has access to free support for their quit attempt. Our system is supported by a public-private partnership between the major health insurers and ClearWay Minnesota, who runs quit plans for the uninsured and underinsured.

Next slide. Because we have multiple quit lines, we've developed a Call it Quits referral program to streamline the process for healthcare providers to refer smokers to quit line. MDH recently assumed responsibility for this program. We're proud to say we have over 1,200 clinics enrolled in the Call it Quits referral program to streamline the process for health care providers to refer smokers to QuitLine.

MDH recently assumed responsibility for this program. We are proud to say we have over 1200 clinics enrolled in the Call It Quits referral program. We are not only making improvements to the program, we have now actively begun promoting it to different provider groups as well as collaborating with chronic disease programs and how to expand it into their provider networks.

Next slide, 34, the goal of our program is to help health care providers more easily connect patients to quit line support by providing a proactive tool designed to reach out to smokers and provide telephone-based cessation counseling. With the referral program, instead of waiting for the smoker to call us, we proactively reach out to the patient to connect them with the quit line. The referral program also enables the quit line to loop back to the provider after the call, ensuring better continuity of care.

Next slide, 35, we are lucky in Minnesota to have a network of Community Health Boards or CHBs and tribes actively working to build healthier communities in the form of our Statewide Health Improvement Program, or SHIP. We have 41 CHBs and 11 tribal SHIP grantees. We are actively working with our network of SHIP grantees to build community clinical linkages. CHBs are partnering with healthcare clinics to support implementation of evidence-based programs like our Call It Quits referral program. SHIP grantees can also help pay for clinical staff to become certified

tobacco treatment specialists to support and provide in-person tobacco cessation counseling.

Next slide, 36, we are actively looking for new community partners to register and participate in the referral program. We have formed partnerships with dental providers through the state to expand our reach into the oral health community. We have reached out to the Minnesota Association of Community Healthcare Centers to increase participation by FQHCs where patients carry high levels of tobacco burden.

We are working on expanding into the network of providers who serve persons with behavioral health conditions since these patients also smoke at very high levels, and we are exploring how to involve non-clinical sites as referral program sites as an additional way to link smokers to quit line services.

Next slide please. Finally, we have initiated a comprehensive Medicaid outreach program to increase awareness among Medicaid enrollees that cessation counseling, nicotine replacement therapy, and prescription medications are covered under Medicaid. Currently many smokers don’t realize that their Medicaid insurance will pay for cessation help.

Our campaign, here in Minnesota, includes radio spots, a print brochure, bus shelters, and the billboard ads you see here on the slide are peppered throughout the state. In Minnesota, we also just passed legislation to waive co-pays in Medicaid for approved preventative services, which would include NRT. This is another way we are actively working to eliminate all barriers to cessation.

I want to thank you for the opportunity to highlight these efforts and pass the slides onto LorieAnn from New Jersey. I am happy to answer any questions at the conclusion of the slides.

LorieAnn Wilkerson-Leconte: Thank you Laura. Good afternoon everyone. I would like to thank the CDC for the opportunity to share two of New Jersey's initiatives to prevent and control hypertension. We will begin the presentation at Slide 40. Among New Jersey residence, heart disease and stroke are the first and third leading causes of death respectively.

Unfortunately, uncontrolled hypertension is prevalent in New Jersey, which represents many missed opportunities for prevention. During 2014, the percentage of patients at FQHCs in New Jersey who had controlled blood pressure range by center from 44% to 77%, suggesting that some are achieving better outcomes than others.

Next slide, 41, in an effort to improve cardiovascular disease outcomes statewide and by leveraging funds from the CDC cooperative agreement, the EP131305, the Department of Health is promoting the reporting of blood pressure measures and initiating health systems interventions that increase the use of evidence based strategies for team based care, and electronic health record adoption.

Work has begun with the federally qualified health centers and regional planning collaborative. Regional planning collaboratives are New Jersey non-profit organizations comprised of multiple distinct corporate entities that collaborate to improve individual and community health and also belong to a health information organization.

Next slide, 42, to enhance health systems at the FQHCs, we have partnered with them to assess their team based care performance and EHR functionality. An analysis of the data collected in the context of their hypertension control rate informs recommendations for increasing EHR or team based care capacity for the management of high blood pressure. In the second phase of this project, funding is made available to the FQHCs that elect to implement recommended strategies from the assessment.

Next slide, 43, to date, our FQHCs are integrating modules and smart forms into their EHRs to optimize data sharing among staff. Staff are being trained to increase the engagement of patience and their own care, and at one FQHC, a pharmacist has been brought on site to provide medication education and adherence support.

Next slide, 44, our collaboration with the regional planning collaborative focuses on implementing and incorporating clinical decision support systems into their health information exchanges. This is to ensure that all of those engaged in the care process have the information they need to make good decisions and take appropriate action that will lead to improved outcomes for patience with high blood pressure.

The CDS system is developed so that it improves the usability and applicability of system initiated alerts, registries, and other clinical data available through the EHRs and the health information exchange. You will note from our slide that although CDS tools were implemented, they were implemented midway as extensive planning must occur prior to the integration of CDS tools.

Next slide, 45, at the end of our pilot in 2014, 100 of the regional planning collaborative partners were EHR enabled with the ability to share and retrieve data through an interface mechanism within the health information exchange.

All have implemented changes in clinical workflow and team based care models have been enhanced to improve care coordination. Over the next three years, the RPCs will report blood pressure control rates and performance measures that demonstrate an increase in the implementation of quality improvement processes to the Department of Health.

Next slide, 46, as you can see, CDC funding, partnership, and national trends have interdependently influenced the development and implementation of our health systems' activities. We have experienced a right place at the right time phenomena, which continues to drive our work.

Next slide, 47, so as many of you always know, change does not come without challenges. Our challenges included our program planning and our timeline. Development required more time than anticipated, however, we identified opportunities while in the midst of the process that enhanced our work plan, but it also delayed our implementation.

English only electronic medical records create barriers for diverse populations to be engage with health system support such as patient portals that cannot be accessed by patients who receive their care in a language other than English. DOH and its partners had to develop a shared language and wanted to avoid miscommunicating the vision during the early planning phase.

Program staff, health information technology partners, and our evaluation team created glossaries and created a language that we all understood to ensure effective communication. And, also working with our partners at the

FQHC, though they were inundated with numerous priorities they have been extremely gracious in giving our staff the time to conduct these assessments. We have had to employ a flexible engagement strategy to eliminate participation barriers for the health centers.

Next slide, our vision over the next three years is we expect to see an increase in the use of health information technology at the FQHCs as well as improved control rates for blood pressure. We seek to replicate the RPC/CDS model in other health care systems and we will document our journey and best practices to share with partners throughout the state.

Next slide, 49, this concludes my presentation. Again, we would like to thank CDC for the opportunity to share our work and we look forward to learning from other states. Thank you.