# MESA Messenger

## **News from the MESA Project Office**

By Cashell Jaquish, PhD, MESA Project Office, NHLBI, NIH

MESA Exam 7 has finished and your participation made it a huge success. We would like to take a moment to express our gratitude for you, our MESA participants. We are thankful that you continue to answer our calls, update us on your health, and make this study possible. The National Heart, Lung and Blood Institute (NHLBI) shares your long-term commitment to the MESA study. We are currently planning for the next phase of MESA. Please be on the lookout for announcements about how you might contribute to MESA in the future. It is with deep appreciation that we look forward to our continued collaboration to improve the health and well-being of people across the United States.

Until then, have you seen the new MESA website? Visit <a href="https://internal.mesa-nhlbi.org/participants">https://internal.mesa-nhlbi.org/participants</a> or use the QR code to the right to open the website. The website has a new, modern look and still contains everything you need to know about MESA, including frequently asked questions and contact information for your study site. In addition, all of the past editions of this MESA Messenger newsletter are available on the website. If you are looking for information from an old newsletter (like recipes, exercise ideas, and research discoveries) you can find it on the website. The website also contains many links to general health information, MESA discoveries and press releases. Please take a look and let us know what you think. We always like to hear from our MESA family!



Once again, we are extremely grateful for your commitment to MESA and to your health. We hope you are taking time to enjoy the summer weather and look forward to big news from MESA. ??



The image above is called a "QR code". If you have a phone with a camera, open the camera and point it at the QR code. A button should display on the screen, asking if you want to open a webpage. This is a shortcut to visit the MESA website, instead of typing the address.

Questions? Contact your MESA Field Center at:

Wake Forest: Katy Melius - (336) 716-7407 Columbia: Vijay Nayudupalli - (212) 305-9932 Hopkins: Imene Benayache - (410) 614-2488 Minnesota: Jackie Muñoz - (612) 625-8560 Northwestern: Grace Ho - (312) 503-3298 UCLA: Sameh Tadros - (626) 979-4920

## **Neighborhoods to Support Healthy Aging**

By Jana Hirsch, PhD, Drexel University

Neighborhoods affect our ability to stay healthy. Where we live can change the foods available, how easy it is to be active, how safe we feel, and our connections with others. Using surveys at MESA exams and connecting addresses to national data, our team showed that our neighborhoods can help us eat healthy, be active, and maintain heart health.

Where we live also plays a role in aging well and living a long, healthy life. Healthy aging means staying active, finding enjoyable things to do, and feeling connected to our community and loved ones. As we get older, we face changes like new jobs, health issues, or even loss of independence. Coping with these changes is key to healthy aging. Where we live shapes how we grow and adapt.

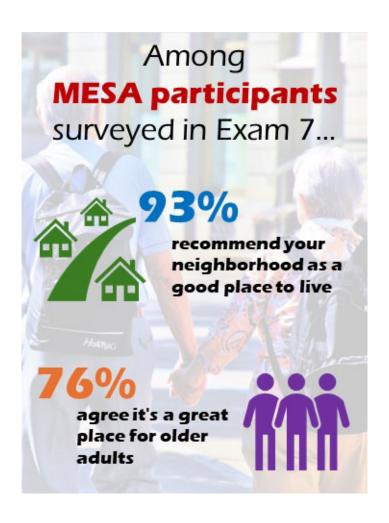
At Exam 7, we added new questions to the MESA Neighborhood Survey to learn how your neighborhoods support healthy lives. We asked about getting around, opportunities to connect with others, and your opinions on whether your neighborhood is a good place to age.

Things like sidewalk condition and ramps, crosswalks, signals, lighting, and rest areas support walking as we age. Most of you find walking in your neighborhoods pleasant (84%) and easy (73%). However, some report there are no places to rest during walks (43%) and no publicly accessible restrooms (60%). These obstacles, combined with declining physical ability, may limit outdoor activities. Almost a quarter of you limit outdoor activities (22%) to prevent falls, and just over half (57%) say you would be able to get where you need to go in your neighborhoods without a car.

Neighborhoods also shape our activities and connections. Most of you say there are places to gather with others (e.g. coffee shops, barbers, churches, libraries) (74%) and welcoming public spaces (e.g. parks, plazas, public gardens) (70%) in your neighborhood. These places help us stay connected and live vibrant lives as we age. However, fewer of you mention neighborhood activities or educational programs.

61% reported activities for older adults (e.g. those at community centers, senior centers, libraries, or other places), and 52% reported opportunities to learn new skills in their neighborhoods (e.g. university courses, library lectures, continuing education events).

Despite challenges, most of you like where you live. Over 93% would recommend your neighborhood as a good place to live, and 76% agree it's a great place for older adults. In the future, our team will connect this information to physical and cognitive health. By participating in MESA, you're helping with exciting research on how daily experiences around your home affect your brain and body. We have enjoyed hearing about your neighborhood over the years and hope you continue to appreciate your neighborhoods as you adjust to each new phase of life! ??



#### **Blood Sugar and Brain Health**

By Timothy Hughes, PhD, Morgana Mongraw-Chaffin, PhD, and Kathleen Hayden, PhD, Wake Forest University

Have you ever felt like you couldn't think straight while you were feeling hungry or stressed? Have you ever felt sleepy right after a meal?

These are just short-term observations, but they help illustrate the connection between brain and body. We already know that high blood pressure and high blood sugar can lead to memory loss and dementia. That means you can do something to reduce your risk.

With MESA MIND, we've learned a lot about those connections.

In the past, we measured your blood pressure and vessel stiffness, asked you to wear a glucose patch to look at your blood sugar levels, and did brain imaging and thinking/memory assessments for brain health. From that work, we know that everyone's blood sugar changes throughout the day and week. We are currently working to understand how these changes may impact memory and brain health.

Recently, the National Institute on Aging gave MESA support to continue our work to see how your blood pressure, blood sugar, and brain health change over time. The goal of this work is to understand whether monitoring and controlling blood sugar can help to prevent dementia, and to give us the tools to maintain good brain health. It will allow us to:

- 1) give you more detailed information on how your thinking and memory and brain health are holding up as you age,
- 2) let you see how your blood sugar changes throughout the day and from one visit to the next,
- 3) learn how these blood pressure and blood sugar changes are related to your thinking and memory.

The new questions and tests we are adding will let us understand these connections that could not be explored before now. Be on the lookout for details. The next exam starts in Summer 2024!



# **MESA Data Helps COVID-19 Research**

By Norrina Allen, PhD, Northwestern University

Exciting updates have emerged from the Collaborative Cohort of Cohorts for COVID-19 Research, or "C4R" Study! This study combined data from MESA and 13 other studies to allow researchers to quickly respond to the pandemic. Our recently published paper provides important updates on the effectiveness of COVID-19 vaccination among adults in the United States, a key finding that participants like you contributed to.

We found several factors which influence an individual's response to the COVID-19 vaccine. Age, gender, and existing health conditions such as diabetes or heart disease are linked to varying levels of antibody response after vaccination. Notably, older adults and those with certain health conditions may have lower antibody levels.

In encouraging news, the study showed that receiving booster shots can substantially increase antibody levels, providing enhanced protection against COVID-19. The study also showed that some individuals may need more frequent re-vaccination. Additional work is needed to determine how best to ensure all individuals are protected from COVID-19.

Your participation in the C4R Study improved our understanding of COVID-19 vaccination. By uncovering these insights, we're moving closer to refining vaccination strategies against the virus.

Thank you for your ongoing support and involvement in the fight against COVID-19. Stay tuned for more updates from the C4R Study! (?)

#### **Lower Your Risk of Falling**

By The Office of Disease Prevention and Health Promotion

More than 1 in 4 older adults fall each year, meaning falls are common. But you can make small changes to help prevent falls. Falling can lead to broken bones, trouble getting around, and other problems — especially if you're age 65 or older. A fracture (broken bone) can cause pain and disability. It can also make it hard to do everyday activities, like cooking or taking a shower, without help.

The good news is that there are lots of things you can do to lower your risk of falling. Take these steps:

- Talk with your doctor about falls and how to prevent them
- Do exercises to improve your balance and strength
- Review all medicines with your doctor or pharmacist some medicines can make you dizzy or sleepy and cause you to fall
- Get your vision checked by an eye doctor every year and be sure to update your glasses or contact lenses when your vision changes
- Make your home safer for example, add grab bars inside and outside your bathtub or shower and put railings on both sides of stairs



You can read the full article at <a href="https://health.gov/myhealthfinder">https://health.gov/myhealthfinder</a> (or use the QR code):



(?)

MESA and the MESA Messenger newsletter are funded by the National Heart, Lung, and Blood Institute (NHLBI).



PRSRT STD U.S. Postage Seattle, WA Permit No. 1529