

Nutrition and *All of Us*

Thanks to participants like you who are sharing their Electronic Health Records (EHR) with the *All of Us* Research Program, researchers can learn more about health and how nutrition can affect our lives. For this edition, we teamed up with the experts at the Boston Medical Center Teaching Kitchen to bring you information, tips and recipes on nutrition and your health.



394,000+
Participants¹

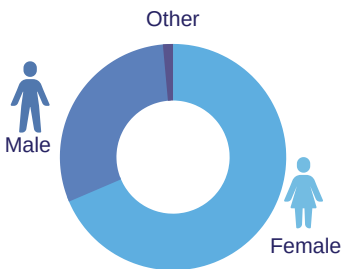


288,000+
Electronic Health Records¹



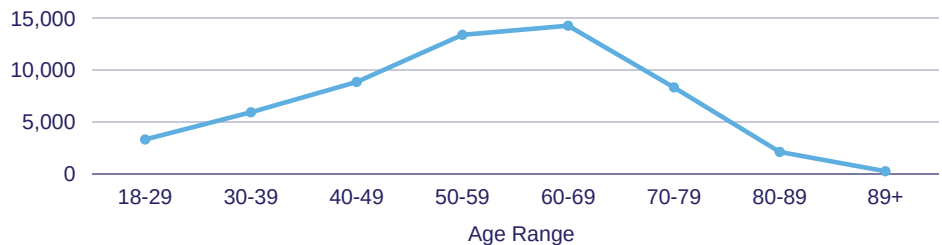
298,000+
Biosamples Received¹

Did you know?



EHR data indicates that 45,920 *All of Us* participants experience some sort of nutritional disorder, also known as malnutrition. Additionally, of those 45,920 participants, 68.60 percent had Female as sex assigned at birth, 30 percent had Male as sex assigned at birth, and 1.40 percent as other.¹

The age range when these medical conditions first occur is wide. But according to EHR data, they are most common among participants in the 50-59 and 60-69 age groups.¹



Vitamin deficiencies, or a long-term lack of essential vitamins, are among the most common nutritional disorders for *All of Us* participants. EHR data indicates that 33,160 participants may not be getting enough vitamin D to stay healthy. Vitamin D helps your body absorb calcium. Calcium is one of the main building blocks of bone. The body itself makes vitamin D when exposed to the sun. Cheese, butter, margarine, fortified milk, fish and fortified cereals are food sources of vitamin D.²



Meet Olivia

Olivia Weinstein, MS, RD, RDN is the culinary nutrition director in the Teaching Kitchen at Boston Medical Center (BMC). Olivia teaches patients how to apply nutrition recommendations to real food. She also teaches patients to use the food they get from the food pantry. Through her work in the award-winning teaching kitchen, Olivia is helping to bring BMC's mission of "exceptional care, without exception" to life. Olivia has served on expert panels and speaks frequently about cultural and socioeconomic considerations in nutrition. She works with major hospitals and other institutions. Olivia is an entrepreneur creating products to help support behavior change and habit formation.

1. Data as of July 7th, 2021. To see the latest data please visit: <https://databrowser.researchallofus.org>
2. "Vitamin D Deficiency," MedlinePlus Trusted Health Information for You, accessed July 14, 2021, <https://medlineplus.gov/vitamindeficiency.html>

Eat Well to Feel Well: Preventing Malnutrition to Support a Healthy Lifestyle

by Olivia Weinstein, MS, RD, LDN and Nicole McFarland, BS, Boston Medical Center Teaching Kitchen

Malnutrition and health: Eating well is critical to managing your health. Eating the right types of food is important. But, making sure that you are eating enough food is essential to health and well-being. Undernourishment, or malnutrition, happens when a person doesn't get enough nutrients and/or calories. Malnutrition affects 690 million people worldwide and almost 46,000 *All of Us* participants. People with underlying health conditions like malabsorption syndromes and cancers are at higher risk of malnutrition. In addition, a lack of access to nutritious foods, whether by location or budget, can also cause nutrition deficiencies.³

Why is eating enough food important? For our bodies to work and feel our best, we need to eat enough calories and nutrients. Calories describe the amount of food we are consuming that is used to fuel body functions, ranging from thinking to moving. Nutrients on the other hand include protein, fat, carbohydrates, vitamins, minerals, and water. Every food provides an assortment of nutrients that support different mechanisms in the body. Not enough food or the right types of food can lead to nutrient deficiencies and other complications. For example, iron deficiency can prevent our bodies from making red blood cells, which transport oxygen to all body tissues.

What can I do? Follow these three easy steps:



Eat a rainbow: Color in food is related to the type of nutrients it provides. For example, green, leafy vegetables provide iron. Red, orange, yellow, green, blue, and purple...how many colors can you add to your meal?



Balance your plate: Make sure that every meal has a lean protein, whole grains or starch, and vegetables. Lean protein includes fish, chicken, turkey, eggs, low-fat dairy, beans, and tofu. Whole grains include rice, quinoa, barley, whole wheat pasta, whole wheat bread, and tortillas. Starches include potatoes, corn, and squash. Vegetables can be cooked, raw, frozen, or included in sauces like marinara sauce or salsa.



Add a sauce: Food high in plant-based fats add extra calories and nutrients to your meal. Dressing, sauces, and other toppings are often high in these healthy fats. Add olive oil, oil-based dressings, avocados, hummus, pesto, nuts, and seeds to every meal.

Local nutrition resources: Boston Medical Center's goal is to support patients and communities who are experiencing malnutrition and/or chronic diseases through the Nourish Our Community program. This program includes services that work together to provide the right foods for different types of medical conditions and cultures.



- The **Rooftop Farm** grows more than 25 local and fresh crops.
- Produce from the farm is given out to patients with special nutrition needs at the **Preventive Food Pantry** alongside other nutritious and shelf-stable foods.
- The **Teaching Kitchen** takes this service one step further, giving community members hands-on cooking demonstrations and teaching them culinary skills.

Choose well

Choosing nutritious ingredients for your meals doesn't have to be hard. Follow this easy recipe **formula** to build healthy meals for yourself and your loved ones every day.

Easy Go-to Grain Bowl Formula

Grain
1 cup
Pick one



Grains have fiber, which keeps us full and keeps our gut healthy.

+

Examples: brown rice, quinoa, barley, farro
Quick prep tip: For speedier assembly consider buying ready-to-serve instant rice.

Protein
1/2 cup
Pick one



Helps us recover from illness and are essential building blocks for the body.

+

Examples: chicken, turkey, fish, egg or black beans, chickpeas
Quick prep tip: Use canned beans, rotisserie chicken, or canned tuna.

Vegetable
1-2 cups
Pick one or two



Contain many vitamins, minerals, and antioxidants that are important for health.

+

Example: leafy greens, bell peppers, cucumbers, tomatoes, carrots, onions
Quick prep tip: Use frozen vegetables.

Toppings
1-2 tbsp
Pick one or two



Most have healthy fats, which are anti-inflammatory.

Examples: sauces, dressings, guacamole, avocado, cheese, olives
Quick prep tip: Making sauces at home is really easy, but if crunched for time, buy them already prepared.

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Try this! Mediterranean Grain Bowl Recipe

Prep time: 15-20 minutes

Servings: 1

Ingredients:

- 1 cup cooked brown instant rice
- 1/2 cup rotisserie chicken or vegetarian substitute
- 1/4 cup roasted red pepper (from a jar)
- 1 cup spinach
- 1-2 tablespoon balsamic vinaigrette (see recipe)
- 1-2 tablespoons feta cheese (optional)



Directions:

1. Add 1 cup of water and 1 bag of instant rice into a microwave safe bowl.
2. Cover bowl and microwave on high for approximately 7 minutes.
3. As rice is cooking in the microwave, gather 1 cup of spinach. If whole, chop the roasted red pepper, and pick 1/2 cup of meat off the pre-bought rotisserie chicken.
4. Take bowl out of the microwave and drain any excess water in the bowl.
5. Open bag and let rice cool for about 5 minutes.
6. If you'd like to create your own balsamic vinaigrette, this is the perfect time to do so!
7. Pour 1 cup of brown rice into the bowl and add spinach, peppers, and chicken. Stir together if desired.
8. Pour 1-2 tablespoons of homemade or pre-made balsamic vinaigrette on top. Add the feta cheese if desired. *Enjoy!*

Balsamic Vinaigrette Recipe:

Prep time: 5 minutes

Servings: 3

Ingredients:

- 3 tablespoons olive oil
- 2-3 tablespoons balsamic vinegar
- 1 tablespoon Dijon mustard
- 1 teaspoon honey
- Dash of salt

Directions:

1. Combine olive oil with balsamic vinegar in a mason jar.
2. Add in a dash of salt as well as the Dijon mustard and honey.
3. Place and tighten mason jar lid.
4. Shake dressing thoroughly.
5. Taste test dressing and adjust proportions of ingredients if desired.
6. Pour 1-2 tablespoons on top of a grain bowl, leafy green salad, or any other type of meal you want!

Nutritional Facts:	
Mediterranean Grain Bowl	Balsamic Vinaigrette
Per 1 serving	Per 1 tablespoon serving
460 calories	130 calories
Total fat 17.9g	Total fat 14.2g
Saturated fat 2.7g	Saturated fat 2g
Sodium 279mg	Sodium 110mg
Carbohydrate 49.7g	Carbohydrate 2.3g
Fiber 2.7g	
Protein 26g	
Calcium 59 mg	
Iron 4mg	
Potassium 603mg	

All of Us Minute Survey on COVID-19 Vaccines



New Survey Alert!

- You may be eligible to complete a new *All of Us* survey. The survey asks participants if they are or plan to get vaccinated. If they do not plan to get vaccinated, it allows participants to provide feedback on the reasons for opting not to receive the vaccine.
- This short survey takes about two minutes to finish in either English or Spanish language.
- Finding out who, when, and why participants get vaccinated—or don't—will help researchers understand the impact of vaccination on helping control the spread of the disease. It will also help researchers understand the impact of barriers that exist for some people around getting vaccinated.

You May Help Future Generations by Completing *All of Us* Surveys Today

Log in to your *All of Us* account to see if there are any new surveys waiting for you.

Your survey answers are important for two big reasons: They tell us about your health experiences, and they may help researchers understand more about why people get sick or stay healthy.

- Please go online at JoinAllofUs.org or use the *All of Us* Research Program app on your mobile device.
- Log in to your account by entering the email or mobile phone number and the password you used to create your account.
- All surveys are available in both English and Spanish, and as always, your answers are secure and confidential.
- You can view your program information, including previous survey answers, and compare them to people like you from all over the country.

Did you know there is a free *All of Us* Research Program app?

Download the app today:

- Open the camera app on your smartphone.
- Hold the device's camera up to the QR code on the right.
- No need to hit the shutter button, your smartphone will automatically recognize the QR code and provide you with an on-screen notification.
- Tap the notification to be taken to the Apple AppStore or Google Play.



Can't log in? No worries! Our team can help. We are happy to help reset your password with our new tool that allows us to assist you over the phone.

Need help in-person? We can schedule an appointment with you to help complete your surveys. Surveys can be completed at one of our hospitals or health centers in-person or over the phone. Contact us anytime at one of the locations below.

Mass General Brigham
(617) 768-8300
allofus@partners.org

Boston Medical Center
(617) 414-3300
allofus@bmc.org

All of Us
New England



What topics would you like us to cover in the next newsletter? Scan the QR code on the right or visit <https://bit.ly/3hECh6k> to complete a short survey and submit your ideas or suggestions.



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