



Why are Individuals with Obesity from Racially/Ethnically Diverse Backgrounds at High-Risk for Cancer?

Webinar

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Webinar Questions and Answers

Moderator:

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Panelists:

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*Medical University of South Carolina,
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Stephen O'Keefe, M.D.
*University of Pittsburgh, Stellenbosch
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Francesca Gany, M.D., M.S.
Memorial Sloan Kettering Cancer Center

- 1. How has COVID impacted your community? Do you have one or two suggested ways to help mitigate the adverse effects of COVID as we try to work to bring this pandemic under control?**

Elisa Bandera, M.D., Ph.D.: We know that, as I mentioned earlier briefly in my talk, there are clearly implications for COVID for both groups. Minorities are being more affected, but particularly obese individuals are, too. I think this is going to have effects in detecting cancer at a more advanced stage with complications for treatment. There's hesitation from people going right now to get screenings, from all of us. You don't want to go to the hospital, but the screening sometimes is also affecting getting necessary treatments. So, I think we're going to see all these effects. And now with immunization, we also know that there are some disparities in vaccination rates. Minorities are less likely to get the vaccine.

The data is coming. We don't know if there is vaccine hesitation or if it's not being offered to them. At least in New Jersey, you have to register to get the vaccine, but if you don't have access to the Internet, that's an issue. I think that we're going to see the effects in general for minorities, but also specifically for obese patients that are already at risk for many things.

Stephen O'Keefe, M.D.: It's very interesting. The combination of obesity and a fiber-deficient diet makes you extremely high risk for getting COVID infections. People forget that the virus is part of the microbiome; that there's a very close working association between the two. If you disturb one, you can disturb the other. Key factors in COVID susceptibility are obesity and diabetes, because of the inflammatory effects that it has on the body in general. And not by chance, if you have a fiber-deficient diet, then from what I have said in my talk, the anti-inflammatory effects of butyrate and short-chain fatty acids are not there. I think that there really is a very good, strong rationale for looking after people who have active COVID infections by ensuring that they have a balanced diet, in particular a high-fiber diet, so that it can exert its anti-inflammatory effects in the systemic circulation as well.

Marvella E. Ford, Ph.D.: Of course, the pandemic has been very tragic. But I think that one thing it has done is to really shed light on really underserved communities. And I think that's a good thing because now we see how the communities have been living, and we have so many opportunities to intervene now. We've talked about telehealth and telemedicine. In the I-95 corridor of economic disadvantage in South Carolina, a lot of the counties don't have broadband access. So, we can see now that if we continue to move forward with telehealth and telemedicine without giving those communities broadband access, they will be left even more behind than other communities. Now there is a push to get rural communities broadband access so they can be included. That's just one example of something that's come about because of COVID -19. I think another factor is, again, the role of obesity, not only as a COVID-19 risk factor, but also as a risk factor for so many chronic diseases and looking at the underlying biological mechanisms of those diseases, linking those factors with diet and nutritional intake. I think that's really critically important. That's another, you could say, unintended consequence of the COVID-19 pandemic. My colleague Dr. David Turner, a biologist, and I have done some disparities-focused work together. He is evaluating advanced glycation end products (AGEs), which are markers of biological inflammation associated with diabetes and cancer, and the role of nutrition in reducing AGE levels, thus potentially reducing cancer risk. I think Dr. O'Keefe said, as we gain in knowledge, we can use that to inform our behavior change interventions. And so, I think that the COVID-19 pandemic has really shown us the importance of nutrition and physical activity on susceptibility to illness and disease. But it also shows us that we are only as healthy as the unhealthiest member of our community. And when we're facing a pandemic, it doesn't matter if one pocket of the community is extremely healthy if you have another pocket that's very unhealthy; that will ultimately affect everyone.

Francesca Gany, M.D., M.S.: We've said a lot of it already, but I do want to say that to mitigate the situation now in underserved communities, we have to make sure we're doing whatever we can to get the vaccine out to those underserved community members. There's discussion about vaccine hesitancy, but there's not enough discussion about vaccine access. There's some discussion around it, but really making sure that the vaccine is available to everyone across the community, including folks for whom it's harder to get it to, is vital. I think that's really key right now, in addition to supporting the community in so many other ways and really addressing the disparities we've seen and heard loud and clear.

2. What are the major barriers in disparities research on obesity and cancer?

Elisa Bandera, M.D., Ph.D.: Always a barrier: funding is a problem, right? Because for these studies I have mentioned, we want large studies where we can actually do granular analyses to understand body composition and effect by subtype, by subgroup, and all these kinds of things. That requires a lot of money. People think that minorities don't want to participate in research, but I don't think that's true. Sometimes, it's difficult to reach them. We need to be community-based, work with community partners, and work with cancer advocates so that we can actually reach minority populations. My own experience is that once they know about the study, for the most part, they want to participate.

Marvella E. Ford, Ph.D.: I think that's a great question. It's really important to include social determinants of health factors and to understand the context in which people are making the food choices that they're making. I think the interventions like the last one that we heard can help to change that context and give people options, but we should start with an understanding that people are operating from the options that they see available to them. Really trying to partner with them and develop a real relationship is important, so that together, the researchers and community members can develop strategies that will be helpful and successful with the input of the community members into the services or the interventions that they would like to receive.

Stephen O'Keefe, M.D.: It's a question of education, and I'm not just talking about minorities, I'm talking about the general population in the USA and every Westernized country. They don't realize what the power of good eating is and the way that we've varied away from what we were – we evolved to eat, which maintains body health. And the best example of this is that you can actually reduce your risk of colon cancer 20-fold by changing to a plant-based diet. A very simple thing to do. People say, oh, you can't do it, you can't change diet, but that's not true. They said the same thing about cigarettes, that people would never stop smoking. We need the media to be on our side, we need to cut out appetizing fast foods and things and make a really concerted effort to change back to a diet that is more natural. I believe the next generation will show us the way.

Victoria Bae-Jump M.D., Ph.D.: I'm going to throw something little bit different out there. I'm a little bit more of a basic scientist. We have very few mouse models or patient-derived xenograft models or other models from racially and ethnically diverse women. And so, I think that can be a barrier of research, too, because as I talked about earlier, we have these more aggressive non-endometrioid tumors or serous tumors, but we don't have any really great actual models or mouse models of those endometrial cancers. I think we need to strive more to collect tumors from more diverse women and derive these models to really look at the genomics of how obesity can affect these models across the board, not just sticking with our more common endometrioid tumors.

Francesca Gany, M.D., M.S.: I think that the issue is complicated by the fact that it involves so many systems. It involves the individual level, it involves the whole food justice system, and it involves the media and industry. And so, we really need to be addressing things and studying them at multiple levels and to be looking at the interactions between the multiple levels, because if we tried to plug a hole on one level, then something else is going to spring up that's fed by one of the other levels. I think that's really the key. It's complicated to do research across multiple levels and to be able to effect change without involving all of those different systems and levels and participants in the work.

3. There is growing research that dietary changes require a more holistic approach – incorporating psychological and behavioral interventions. Can the panelists discuss the future of this research and if there are plans to move in this direction?

Victoria Bae-Jump, M.D., Ph.D.: This is an excellent point. Our weight loss clinic at the University of North Carolina (UNC) Chapel Hill is incorporating psychological and behavioral strategies in the management of patients. We are working on a pilot study to increase referrals of our obese endometrial cancer patients to this weight loss clinic.