

The Vatican's Pontifical Council for Culture and the Cura Foundation's Fifth International Vatican Conference

MIND, BODY & SOUL Part II: Innovations in Prevention, Treatment, and Sustainability

Unite to Prevent Cancer

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Broadcasted on Thursday, May 6, 2021 at 1:05 PM

Amy Robach:

Around the world last year, 10 million people died of cancer and 20 million new cases were recorded. And yet half of all cancers can be prevented. That's the big thing we want to talk about right now, prevention. Here to discuss how we can unite to prevent cancer are Dr. Ron DePinho and Princess Dina Mired. Thank you so much for being with us, both of you. And Ron, I'm going to begin with you, because we've talked a lot about how the COVID pandemic has exposed disparities that were already there, but certainly heightened them in the United States and around the world as well. So how can we use what we've learned during this pandemic to pivot into a health care system that does focus on prevention and detection?

Ronald A. DePinho, MD:

Amy, thank you for asking the question. I think that there are three key lessons that we've learned. First and foremost, that science and technology, when applied, can profoundly impact the health of humanity. We've also learned that when we unite diverse stakeholders, those in policy, biotech, education, faith-based organizations, foundations and philanthropists, health care providers, we can dramatically accelerate change. And I think a great example of that are the COVID vaccines.

And then thirdly, we've learned, painfully so, that an ounce of prevention is worth a pound of cure. And with respect to cancer, given the aging of the world population, we're going to have over a billion people over the age of 65 very soon from now. That's going to drive a

dramatic increase in cancer. And the world cannot afford to remain in a reactive disease care system. We really have to shift more to a proactive health care system, which is really focused on the prevention aspects of diseases, such as cancer. Now, if we're successful, we will profoundly impact the economic and societal fabric of the world, particularly for the underserved. And this is a real challenge because there's an enormous, growing gap between this transformative science, all of this knowledge, all of this potential, and the implementation of those solutions. So we really have to focus on the prevention aspects of disease.

Amy Robach:

When you talk about that gap between what we know, and then actually implementing that knowledge, what is missing? What's the disconnect?

Ronald A. DePinho, MD:

So I would say that this gap between knowing and doing really rests on the fact that we really have to collaborate. In fact, this conference is focused on bringing diverse stakeholders together, that uncommon table, where you have different groups, each with unique capabilities. Parts of the solution, that when brought together can really move the needle on any particular problem. The second is that while disease typically manifests during adulthood, really the seeds of disease are planted during childhood. And so action needs to be taken during childhood in order to prevent adult diseases. And then lastly, we need a lot more information. We have to understand what the instigators are of disease, of cancer, at the neighborhood level, in communities. Because different communities will have different problems. And so we need to help them understand what are the specific problems and what are the solutions needed to rectify those problems, remove those instigators. And that kind of granular data will enable us to asymmetrically deploy limiting resources. So I think those are all critical opportunities for us to really move the needle. And if we do so, again, we'll have a profound economic and societal impact.

Amy Robach:

And Princess Dina, I want to bring you in this because we have talked about the disparities in cancer fatalities between low- and high-income countries. And we're even talking about highly treatable, highly curable cancers. So talk about what you've seen firsthand and those gaps that need to be filled, it's a life or death situation.

Princess Dina Mired:

Thank you, Amy. And I think this is spot-on. It really is, with regards to cancer treatment and surviving cancer, it is a tale of two cities, basically. Seventy percent of deaths do happen in low- and middle-income countries. As we speak right now, a child that may have, for example, leukemia, which we all know has about 90% chance for a cure. I'm a mother of a cancer survivor. In other countries, in Africa, or other low- and middle-income countries, that child has only about 10% chance of a cure, if that. That is, if they do get treatment at all. I visited countries that have a population in Africa, for example, of 40 million, and they have just acquired their first ever radiotherapy machine. Imagine! I even hugged that machine at one point because they've just acquired it right now.

And if you ask, why did that happen? I think because way back when, I don't know who started that, they decided, the powers to be that low- and middle-income countries are only busy with communicable diseases, infectious diseases, and that rich countries are the ones who are only facing of cancer, diabetes, heart diseases, et cetera. And as a result, all of these countries did not – there was a big gap in the readiness to fight cancer and to actually build the infrastructure for cancer. And as we know to build the infrastructure for cancer is expensive and it takes time. And that is why we are where we are. A lot of countries are still lagging in being able to have the human resources needed, the infrastructure, the machinery, the – you name it. And that's why, in a way, this conference is so important because prevention is always the best way forward.

Amy Robach:

You know, Ron, I wanted to talk about prevention and how late is too late. You talked about the importance of starting in childhood. I had cancer at 40, and that was about when I started to realize all the things that I had done wrong and really changed my diet, my nutrition, my exercise, all of that. But how do you tell people when it's okay to start? Is it too late to start at 40? Give us a sense of what the science is saying and showing.

Ronald A. DePinho, MD:

Yeah. A very good question. So it's good news is it's never too late to start. And if you implement certain strategies, you could have a profound impact on your health and wellbeing, the incidence of disease, and your life expectancy. Just to give you some details, just 15 minutes of exercise per day can increase your life expectancy by three years and reduce the incidence of cancer, diabetes, and heart disease by about 15%. Now, if you do 30 minutes, you get even more benefit. Managing stress, chronic unrelenting stress, and lack of sleep can have a very significant impact. Engaging in preventative services. So mammography, colonoscopy, skin exams, these are enormous opportunities to really catch cancer at its earliest, most curable stages. So those are all really important opportunities for us that can really make a big difference.

Amy Robach:

Right, it's something that gives people the power to say, "I can do something individually without a large cost to myself, to make a difference in whether or not I live or die or how long I live." Princess Dina, I once had someone tell me there's a cure for cancer, it's called cash. I'm curious with your experience around the world, what is the biggest problem or the biggest hurdle to either short-term or long-term solutions for cancer? Is it money? Is it political willpower? What is it?

Princess Dina Mired:

Of course, you do need resources. It is a big issue because cancer management is expensive. We all know that. However, it's not just about money. I speak from my own experience here in Jordan, when we, as a team, try to fix our hospital that was literally tantamount to a morgue. And then we worked to fix it, to become what it is today, a fantastic, in-housing cancer center. Our problem was not money. Imagine. We had the infrastructure, we had the machines, we had the human resources. It was purely

management and governance that was the big block. And throughout my visits, when I was president of the Union for International Cancer Control, I saw the exact same thing in low-and middle-income countries. Whereby, for example, maybe a country had maybe imagine a new radiotherapy machine bought, but the room to house it was not the right size.

I mean, management, governance, that kind of thing. Political will is key as well. If you don't have political will to actually fight cancer and to provide the services for your own people as a country, it's really tough to make things happen. Also, the donor communities, the way they behave that also needs to change. They have also been a factor in promoting disjointedness of efforts in low- and middle-income countries. Even if they come in with really great intentions, they sometimes also make the effort – maybe they promote duplication and things like that. And I've experienced that also myself. They come in and they want to do, for example, early detection of breast cancer. They wanted to do that with us in Jordan. And we said no, because it wasn't at the right time. We were focused to fix treatment per se, firsthand because we felt, why would we tell a woman about her breast cancer, to make her aware if she did have breast cancer when we hadn't even fixed treatment yet. And so we knew what we want to do, and when we should do it. Things like that.

Also lobbying by the food industry, by tobacco industry, and so on and so forth who are completely, they are a huge element in not helping countries being able to fight cancer. And again, when we talk about prevention and tobacco comes number one. In my own country, we've had huge lobbying by tobacco industry to prevent us from doing all the things that we should do to reduce consumption. But then again, prevention, I would tell countries prevention is key. Every \$1 invested in WHO evidence-based best buys, exactly the kind of things Ron talked about: physical health, physical exercise, reduce alcohol, tobacco, et cetera. We yield a return of \$7 on NCD prevention, including cancer. So actually it is a winwin if there is political will to actually utilize the knowledge and the tools that we have now.

Amy Robach:

Yeah. That makes a lot of sense. Go ahead, Ron.

Ronald A. DePinho, MD:

I think that, just to underscore the really important statement that was just made, we cannot afford not to invest in prevention. Just to put it in very sharp relief, with HPV, a virus that causes cervical and throat cancer around the world. In the United States alone, there are 34,000 cases per year, and it costs us about \$8 billion to treat those diseases. For us to vaccinate all 4.4 million 11-year-olds in the United States each year, would cost about a billion dollars. And that might actually go down if we go from two doses to one dose in a trial that's currently underway. So it's not that we shouldn't be investing in this. We cannot afford not to invest. So resources are important, but also leveraging diverse stakeholders.

Knowledge is cancer's greatest vulnerability. So if we use our education systems to teach our children about healthy living and prevention, that can impact families. Policy makers with one stroke of the pen could have a profound and lasting impact on health outcomes for their citizens and so on. So I think the theme of this whole session here is about bringing

diverse stakeholders together, each with their responsibilities, their unique capabilities, into a collective impact that really moves the needle on the prevention opportunity that we have.

Amy Robach:

And Princess Dina, I know you've done a lot of work when it comes to making, or at least ensuring that the HPV vaccine is something that is universally accessible. Talk about your work there and talk about the communities that are hardest hit by this type of cancer that is preventable.

Princess Dina Mired:

Absolutely. I actually now sit on the WHO Task Force for the Elimination of Cervical Cancer. I mean, where do you get a disease right now that you can say you can eliminate? Cervical cancer is one. You can prevent with a vaccine, you can early detect, and you can treat. So this is a great opportunity to help save the lives of 570,000 women. That's the last number from 2018, who have cervical cancer. And again, unfortunately, 70% of which are in low-and middle-income countries. So we do have an opportunity to do something and save these women. And we can do it. Again, we've seen as Dr. Ron said, vaccines being produced at maximum speed. This is something we've never dreamt that they can produce these vaccines at this speed. They can do this.

We need to watch about how to disseminate these vaccines in an equitable manner, so that all can receive the vaccines, not just high-income countries. As unfortunately, that we see right now, countries, nationalism, racism, you name it. We have to learn from that if we're going to make this happen and to make sure that every girl and every woman has her rightful chance to have the vaccine. But there is a big opportunity because we can remove one disease of the map. And this is great.

Amy Robach:

Yeah, that is very incredible to hear. And I'm going to end this with you all each giving me, for about 30 seconds each, the three tips you would offer adults, what they could do right now to greatly reduce their risk of getting cancer or even dying from cancer. Ron, I'll start with you.

Ronald A. DePinho, MD:

Well, I would say engage in prevention strategies, so screening and that sort of thing. Obviously, if you're smoking, stop smoking. Secondly would be to be more active and eat healthy. And the third thing would be to manage stress proactively. And it can be done.

Amy Robach:

Go ahead, Princess Dina.

Princess Dina Mired:

I'm not going to repeat what Dr. Ron said, because I agree with all of that, but I also say, really believe that your health, is literally in your hands. That you can prevent getting cancer and other NCDs by 30 to 40%. That's on you, on the individual. So that's not bad as a percentage. I know there are other reasons to get cancer, whether by infection, by genetics, et cetera. But this is on you. So start the habits early, teach your children, and do those little – the exercise, the 15 minutes that Dr. Ron talked about, at a minimum to really prevent the chance of you getting cancer. And certainly, I always say tobacco, tobacco, tobacco. Just stop smoking if you are. There's nothing good about tobacco.

Amy Robach:

Princess Dina, Ron, thank you both for your incredibly wise words and your impassioned speeches. We all got a big takeaway from them. Thank you.

Princess Dina Mired:

Thank you, Amy. And thank you Dr. Ron.

Ronald A. DePinho, MD:

Pleasure. An honor.