SPEAKER 1: So the two papers coming out in the Journal of the National Cancer Institute really focus on risk for breast cancer in the general population. So this is really before women develop cancer. Can we figure out what their levels of risk might be? Who is at high risk? Who's at low risk?

The women who can benefit from this are those that are worried about breast cancer, or maybe find a lump that turns out to be benign or normal, but they still might be at increased risk. So when they come into the clinic, they're evaluated for their family history of breast cancer, if they've had any prior biopsies or any problems in the past. We look at physical activity, diet, things like that. And we can put all of those into special statistical models that will actually predict their level of risk.

So now, when we add all these genetic events to that, we find it's particularly powerful. And we were able to show that 10% of women who were assessed could actually be moved into a different risk category-- either up or down-- so that's particularly effective in personalizing a woman's risk. Rather than getting more generic risks, we can now do a better job of giving them their individual risk of breast cancer.

So if a woman has a family history, that can often be much stronger risk than the type of risk factor we're talking about here. These risk factors are really for people who don't have much of a family history, but still might be at risk, just unknown to them. And it can be because of the environment, or certain behaviors, but when we add this new genetic information to all of those other methods, we can actually do a better job of putting people into different risk categories.

So what we call upstaging, or putting them into high risk, where they need to be followed more closely, maybe have more mammograms or MRIs, or we can downstage them into a lower risk group, where maybe they don't have to be followed as frequently. And so there are less biopsies. There are less frequent follow-ups.