

## National Cervical Cancer Incidence Data Transcript

### Slide 1

CAROL KOSARY: Hi, and I want to welcome everybody to Corpus Christi. Those of you who flew in with us on the plane know that when we got here, we fell to the ground and kissed the ground. So exciting was our flight. The NCI Surveillance, Epidemiology, and End Results program is a population based program, representing about ten percent of the United States, and it's been in existence since 1973. So we're basically talking about a quarter-century of surveillance data that we can bring to bear to this question.

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I want you to note that this is for all women, all races, and unlike the chart that Jon showed you earlier, with cancer mortality, where we could still discern that we were still seeing declines. With the exception of those women, ages 65-plus, in terms of incidence, we've basically have seen plateauing in our rates, since about the early to mid-1980s. I want to remind you that what we are looking at is invasive cervical cancer in this particular chart and remind you that we're not talking about a cancer like breast cancer, mammography screening, where we're talking about our screening device. Basically, it comes into effect as an earlier diagnosis of a cancer. We're talking about a screening modality that's been in effect for, basically, 50 years that can detect cancers long before they become even in situ. So, the fact that we're seeing plateauing in our rates of a cancer that, basically, no women should be being diagnosed of with an invasive state to begin with, is rather dismaying and rather disheartening to me. You're probably, most of you, aware that there are differentials between the various racial groups in terms of cervical cancer incidence, blacks having a higher rate, although, recently, the rate for younger black women having actually, in effect, caught up with the rate for younger white women, so that, I guess we can consider that to be a bit of a success. But still dismayingly below that zero level that we would like to see ourselves approaching at this point. What you may not have seen, what you may not have thought about,

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are that there are issues, there are characteristics that we can look at in terms of our incidence data that cut across racial lines, and these have been alluded to by Susan Devesa before me. These are the various, you know, indexes of socioeconomic status that we can examine. In the next couple series of slides we're going to look at two of these: in particular, median family income and percent at least high school education. And we're going to look at this on the county level, with our counties being grouped in quintiles, looking at the lowest 40 percent versus the remaining 60 percent.

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And if I do this, the results are really quite striking in terms of median family income, in terms of cervical cancer incidence for SEER for the years 1988 to 1998. Particularly for the older women, 65-plus, you can see probably a 20, 25 percent difference in the rates.

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This is even more striking when we look at the educational attainment 3/4 the percentage of at least high school education. And this is particularly true in the ages 45 to 64.

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What is particularly striking is if we look at this in terms of stage of disease. This isn't only invasive cancer that we're looking at; in this case, we're actually looking at 20 percent at-least high school educated versus the remaining 80 percent. But I want you to notice that fully 50 percent of those women within the SEER registries, in the 20 percent, you know, the lowest counties, the counties with the lowest educational attainment, are being diagnosed in stage I. Fully almost 20 percent are being diagnosed in stage IV. Over half of these women are being diagnosed in stage II, III, and IV, which the oncologists in the audience can tell you greatly decreases for these women the probability of being effectively treated.

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And finally, we formed a logistic regression looking at those factors influencing probability of dying. These were women diagnosed from 1988 to 1998, looking at various factors: age, stage, urban versus rural, median family income, and at least high school education.

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And basically, looking at each one of these pairs, your probability of dying is greater if you're age 45-plus. You know, most people think of cervical cancer as being a disease of younger women, though, actually, if you go back to the first chart, the rates are actually much higher for older women, and that's long been an issue. Of course, as you would expect, your probability of dying is much greater if you're diagnosed beyond stage I. We saw a very slight effect for urban versus rural, but you have to remember that this is SEER data; this is not the total U.S. SEER data skews slightly more urban than rural.

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We saw nothing in terms of median family income, but actually a rather high effect for education, with those in the lower education group having a much higher risk of dying than the more educated group.

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In summary, I want to point out again that this fight 3/4 the long term, with half a century 3/4 you know, we've had the test. You know, despite having had Pap screening for a long period of time and observing initial declines in our observed rates of invasive cervical cancer, we've seen a plateauing of the rates far above, you know, a rate that would be expected

to be approaching zero. That we still see vast differentials existing in incidence across various measures of SES.

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And that you're more likely to die of your cervical cancer if you're diagnosed at a later stage; if you're older; if you live in communities that have a lower educational attainment; or, possibly, if you live in an urban setting. And I think that's it for me.