Remarks* by

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"NCI's Role in Promoting Rural Cancer Control"

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Good morning! I'm excited to join you this morning to help kick off this important meeting.

I'd like to congratulate and thank Bob Croyle and his staff for their effort in putting this meeting together and their commitment to tackling this important issue.

As you know, I came to NCI from the Lineberger Comprehensive Cancer Center (LCCC) in North Carolina. The Catchment Area of that cancer center includes some very rural areas, so I've seen firsthand the challenges of rural cancer control.

Cancer disparities are often discussed in terms of socioeconomics or race. And both, clearly, are important contributing factors to the cancer disparities that exist across the United States.

But, as Bob said, we also know that disparities are a function of geography. As one recent NCI-led study found, cancer death rates are nearly 10% higher among those who live in rural areas compared with those who live in urban areas.

And although cancer death rates are steadily decreasing across the country, a recent CDC study showed that those rates are declining at a slower clip in rural areas than they are in urban areas.

This problem of rural versus urban cancer disparities is complex, as rurality is associated with many confounding conditions: high rates of tobacco use, poverty, poor health literacy, obesity, and lack of access to care.

So just as the biologic heterogeneity of cancer means that no single treatment can extinguish all tumors, it is certain that no single intervention could address the cancer disparities we see in rural America.

Health disparities in rural areas of the country are not new. NCI has recognized this issue and supported programs focused on improving cancer control in rural communities for many years. It was in the early 1990s, in fact, when NCI launched the Central Highlands Appalachian Leadership Initiative on Cancer.

So why are we here today? Well, despite pockets of success, as the studies I mentioned illustrate, these disparities are persistent, and in fact may be getting worse. I think it is time to

*This text is the basis of Dr. Sharpless's oral remarks. Use with the understanding that some material may have been added or omitted during final presentation.

revisit our prior work in this field, rethink our assumptions, and work together to redouble our efforts to address the cancer health disparities that afflict the rural areas.

So, that's why we're here. But what's different *now* than it was even 5 years ago that makes us think we can reverse this trend?

Well, one of the most important differences is that we're now bringing to the table investigators with different types of research expertise—in environmental epidemiology, medical sociology, data science. And we're employing new types of research tools, such as geospatial mapping and data visualization.

This means that we're collecting more data and better data. And it means that we can use those data to better describe and understand disease patterns in regions of the United States at a far more localized and granular level than possible ever before.

A main challenge for NCI now, though, is determining where to inject the new research expertise and tools to have the biggest impact.

When I started at NCI, I began with a 6-month listening tour to learn about the problems facing NCI and the United states with regard to cancer. That effort helped me to formulate what I saw as four key focus areas for NCI: workforce development, recommitment to basic investigation, usage of big data, and enhancement of clinical trials.

During that tour, I heard a lot about cancer disparities, and especially this emerging problem of rural cancer control.

Those conversations were timely, as Bob and other NCI leaders had been talking to the community about this issue, and about their priorities and needs in addressing them.

They met with investigators in NCI's Community Oncology Research Program **(**NCORP), many of whom are on the front lines in rural communities. They've organized workshops, including one earlier this year on conducting research in small populations.

So, given my prior work in North Carolina and what I had learned on my "listening and learning tour," I was very excited about these efforts, and joined right along. And now we have brought you all together here today to help move the agenda forward.

It is an exciting time in this area. Here are some things we are already doing:

We've made supplemental funding available to NCI-designated cancer centers to help them ramp up their research on cancer control in rural areas. We've issued a new RFA to support research to extend the reach and quality of cancer care to traditionally underserved areas.

We've renewed support for NCORP, which has great potential to advance progress against cancer health disparities. NCORP centers are present in 46 communities across the country (~900 satellites) and NCORP has a built-in infrastructure to study ways to improve cancer prevention, control, and care delivery at the community level. NCORP can also help to deliver on the promise of precision oncology by helping to recruit patients from rural areas to innovative clinical trials like NCI-MATCH that they previously would not have had access to.

Another program that I think holds tremendous promise is one being funded as part of the Cancer Moonshot. Called ACCSIS—Accelerating Colorectal Cancer Screening and follow-up through Implementation Science, this effort is intended to improve the uptake of colorectal cancer (CRC) screening.

As many of you are aware, screening rates for this cancer continue to be suboptimal, particularly in rural parts of the country and other traditionally underserved areas.

I learned about this as a cancer center director. Rural northeastern North Carolina has a "hotspot" of very high CRC mortality—one of highest in the nation—and reduced access to health care. We spent a lot of time trying to figure this out and make a difference for these patients.

ACCSIS is specifically designed to target these populations and will fund research that uses multiple proven, evidence-based interventions tailored to meet the specific needs of the communities for which they're being targeted.

It's important to stress that a key aspect of our efforts to address cancer disparities has been leveraging resources and developing partnerships, particularly with partners that have experience working with rural populations. Those partners include other federal agencies, state and local health departments, nonprofits, and the private sector.

For example, NCI and CDC have several ongoing joint initiatives that can be a springboard for greater progress in reducing cancer disparities. Included among them are the Cancer Prevention and Control Research Network. This joint effort, which includes numerous other federal agencies and nonprofit organizations, is supporting programs aimed at increasing uptake of the HPV vaccine and smoking cessation among cancer survivors, as well as other cancer control activities.

And something I'm very excited about is a new partnership between NCI and the Federal Communications Commission (FCC).

One of my first official actions as NCI Director was to sign a Memorandum of Understanding with the FCC to build on an existing FCC program called Universal Service, which will focus on expanding access to broadband and other communication services across the country.

That's important, because expanded broadband access means easier access to information about cancer, cancer prevention and new clinical trials. Expanded broadband access also means an opportunity to take advantage of an area of great promise, telehealth, which is already being used to do things like convene virtual molecular tumor boards to help further the delivery of precision oncology to patients being treated at community hospitals.

The inaugural effort under this collaboration will be a project in Appalachia called LAUNCH. This project, which will initially roll out in rural Kentucky, will specifically target areas that face a dual challenge: higher cancer mortality rates and low levels of broadband access.

Another innovative collaborative program, in which NCI is involved, is called the Intervention Research to Improve Native American Health (IRINAH) program. Launched in 2011, IRINAH is a joint effort of NCI and 7 other NIH institutes and is intended to improve the health of American Indian and Alaska Native populations.

One IRINAH-supported project, for example, is helping to reduce tobacco use among pregnant women in Alaska Native communities. A second is testing ways to increase CRC screening rates and follow-up care after screening among American Indians in the Southwest US.

This latter study is a model of how the community must be incorporated into our research if we're going to make progress. It includes investigators from the University of New Mexico, officials from the American Indian-owned and -operated Albuquerque Area Indian Health Board, and Six Pueblo Tribes in the rural Southwest.

This is what makes this work and this research so important and so challenging.

It's not like a clinical trial, where you're testing drug A versus drug B in a tightly defined group of patients whose tumors have well-characterized driver mutations. Every community, every county is different. Each has its own geography, its own culture and customs, its own socioeconomic, racial, and ethnic makeup.

To do this work means investing the time and effort into building trust among those who provide care in these rural communities and those they're caring for. Something like that can't be accomplished overnight. It can take years, in some cases, to build those relationships, to earn that trust.

Someone who has long toiled in this specific vineyard of rural cancer control is my friend and important NCI advisor Dr. Elektra Paskett from the Ohio State University.

As this audience knows, Dr. Paskett is a top-notch investigator who is deeply committed to helping people and improving cancer control, particularly in rural areas. And I believe she will be part of a session here tomorrow morning.

Dr. Paskett's work is the definition of "boots on the ground" research and it has demonstrated the kind of impact we can have in rural communities.

Take, for instance, an NCI-funded study she conducted nearly 20 years ago when working back in North Carolina at Wake Forest. She showed that targeted outreach and education in a community could substantially increase cancer screening in women. For example, mammography rates nearly doubled in that population during the study period.

Years later, Dr. Paskett explained what that research meant to many of the women in Forsyth County who were involved in the study. "We didn't even know we'd made that much of an impact on the women until it was time to leave," she told a reporter. "The ladies were crying because they said nobody else had cared enough to come into the communities where they lived."

In my opinion, that one story exemplifies why this meeting and the work you all are doing are so important.

Thank you very much again for inviting me to speak. I'm happy to take any questions.