Weighing what makes a difference

When does a difference make a difference? That's a question that Samuel Finlayson, M.D., and Ian Paquette, M.D., have been pondering, in the context of a recent finding that urban patients tend to be diagnosed with cancer later in the disease's progression than do patients who live in rural areas.

Age: "The difference between the two populations was statistically significant, but the absolute difference was not that great," says Finlayson, an associate professor of surgery. He and Paquette, a resident in general surgery, published their finding in the *Journal of the American College of Surgeons*. They based their study on data collected by the National Cancer Institute about cancers of the colon and lung and controlled for factors such as age, race, gender, marital status, income level, and level of education. Though the difference between urban and rural patients wasn't great, the researchers were interested in the the direction of the difference, for the previous assumption had been that rural patients were diagnosed later.

"What's more notable," Finlayson adds, "is the very high proportion of people presenting with late stages [in] both populations. That's probably the more striking finding—even more striking than the small differences that we saw between the urban and the rural populations."

Colon and lung cancers are "both very common cancers and major health problems in the U.S.," points out Paquette. The two cancers, says Finlayson, "can both present at a very wide range of stages, with very different prognoses."

Colon cancer, when identified early, can be surgically removed; such patients have an average five-year survival rate of greater than 90%. But when it's found at a more advanced stage, colon cancer is virtually incurable. That's why regular screening for colon cancer is highly recommended, especially since the disease's risk factors are not very well understood.

The difference was statistically significant, but "not that great."

For lung cancer, on the other hand, there is no nationally recognized screening recommendation, though an effort to identify one is currently under investigation in a major multicenter trial (DHMC is one of the participants in this trial). Also, there is a clear and undisputed risk factor for lung cancer—smoking—unlike colon cancer, where most cases are sporadic.

"There is certainly a need for a cost-effective way of screening for lung cancer," says Paquette. But, adds Finlayson, "if we were to allocate resources to screen for lung cancer or to prevent smoking, it would probably be more cost-effective to prevent the disease in the first place than to try and find [tumors] after they have evolved."

Inquiring: So a study that was designed to assess whether there's an urban-rural diagnosis differential led to ruminations on the effectiveness, and cost-effectiveness, of screening methodologies. Maybe that's a mark of truly inquiring minds. TINA TING-LAN CHANG

JON GILBERT FOX

Herndon is concerned about a proposal to expand the definition of osteoporosis.

Definition is a bone of contention

Millions more women could be needlessly treated for osteoporosis under new guidelines recommended by the National Osteoporosis Foundation (NOF) and the American College of Obstetricians and Gynecologists (ACOG). A DMS study in the journal *Health Affairs* suggests that the new disease-definition guidelines would come at a net cost of $46 billion.

Osteoporosis makes bones more fragile and likely to break. It affects 44 million Americans, 68% of whom are women. One in two women and one in four men will have an osteoporosis-related fracture during their lifetimes. DMS internist Brooke Herndon, M.D., who led the study, agrees that osteoporosis is a major health concern, especially for postmenopausal women. But she says there's no evidence that treating more women will reduce the number of fractures.

Eligible: Under current guidelines, established by the World Health Organization, 6.4 million women aged 65 years and older and 1.6 million women aged 50 to 64 are eligible for drug therapy. Under the new guidelines, the number of treatment-eligible women would jump to 10.8 million in the 65-plus group and 4.0 million in the younger group. "Expanding disease definitions . . . always means that the number of affected people rises," wrote the DMS authors (who are all members of the VA Outcomes Group in White River Junction, Vt.). "But this group of newly identified patients is at lower risk."

"There's a lot of confusion in clinic, because almost every woman over the age of 50 has low bone density," says Herndon. "What's so low that you should do something about it? What level of 'low' actually matters to the patient?"

The authors pointed out that expanded disease definitions can mean larger markets for pharmaceutical firms and that WHO, NOF, and ACOG all receive funding from the drug industry. They would like to see an "independent organization, such as the Institute of Medicine, review the evidence and develop an unconflicted definition of osteoporosis requiring treatment." LAURA STEPHENSON CARTER