Titan and colleagues\(^1\) report on the so far untapped potential of lung cancer screening in women presenting for breast cancer screening. Among a group of 874 women who attended mammographic screening and who were in the age range eligible for lung cancer screening, they found that as many as 99 (11.3\%) were at risk for lung cancer and were, in principle, eligible for low-dose computed tomography (CT) screening. Of this subgroup of 99 women, only 35 (35.5\%) did indeed undergo low-dose CT. Lung cancer screening was significantly less often recommended by primary care physicians than breast cancer screening.

Lung cancer is the leading cause of cancer death in women in the US; thus, although breast cancer is a far more frequent disease, more women die of lung cancer each year than of breast cancer.\(^2\) Over the past decade, compelling evidence has been collected on the fact that early diagnosis of lung cancer by low-dose CT does translate into a survival benefit—just as early diagnosis of breast cancer by mammography does. Based on the results of the NELSON study,\(^3\) the survival benefit of CT lung cancer screening is even higher for women than for men.

The survival benefit afforded by low-dose CT screening is likely not only attributable to the stage shift and limited disease burden in patients whose lung cancer is diagnosed in an early stage. In this era of targeted therapies being developed especially for lung cancer,\(^4\) another important advantage of early diagnosis is the fact that this may allow a cancer to be found and treated before clonal diversification reduces the chances of cure by such therapies. Accordingly, lung cancer screening and modern treatment protocols are perfectly synergistic approaches to avoid premature death from lung cancer.

Accordingly, early diagnosis is at least as important, or arguably more important, for lung than for breast cancer. And yet, the number of women who are at risk and participate in lung cancer screening is low, and far lower than the number of women who attend breast cancer screening. This is explainable by the fact that mammographic screening is a preventive measure with an almost century-old history. Mammographic screening of breast cancer is the archetype of populationwide secondary prevention. The successful penetration of mammographic screening as a preventive measure is attributable to two different factors. For one, breast cancer is a very frequent disease. Every woman knows at least one, more likely several, women who currently have or have had breast cancer. Due to the relatively low mortality of breast cancer, the number of women who survived the disease and who thus can contribute to the societal awareness of this disease is huge. In addition to this direct, ie, personal exposure to individuals who have or who had breast cancer, there have been vast efforts to raise breast cancer awareness in women and their health care practitioners, and to educate them about the utility of mammographic screening. Since there is no systematic invitation system available in the US as there is in many European countries, generating public attention through huge campaigns was—and still is—the only way to ensure women's participation. Accordingly, the current generation of women in the US who are in the screening-relevant age range have literally been brought up with a sense of basic trust in mammographic screening—fed by inevitably condensed statements typical of mass media campaigns like “save your life—get a mammogram!”

The incidence of lung cancer is much lower than that of breast cancer in women. Until recently, women diagnosed with lung cancer had a limited life expectancy, which contributed to the fact that
women’s exposure to other women who have or had lung cancer has been limited. Of possibly similar importance is the fact that for a long time, and very much unlike the situation in breast cancer, lung cancer was considered a “male disease.” Accordingly, there is a lack of awareness not only in women, but likely also their health care practitioners, who may have been trained at a time when gender aspects in medicine were not adequately addressed. Such gender aspects still lead to the fact that myocardial infarction—another disease perceived as “male”—is less frequently diagnosed in women than in men. Finally, first results of low-dose CT screening to improve survival of individuals with lung cancer have been published only approximately 10 years ago; consolidating evidence on the impact of low-dose CT on the outcome of individuals with lung cancer is still emerging. This is also true for the evidence on the adverse effects associated with low-dose CT for lung cancer screening. Compared with mammographic screening of breast cancer, the number of individuals who can expect a false-positive test result after low-dose CT for lung cancer screening is about 3 times higher (second screening round) or 2 times higher (third screening round) than with mammographic screening. And although a core- or vacuum-assisted breast biopsy is an unpleasant procedure that can be associated with pain, tenderness, or rarely infection—a lung biopsy is a more invasive procedure, associated with a substantially higher risk, especially in individuals with COPD and emphysema—a condition frequently present in the cohort of individuals eligible for lung cancer screening.

In many countries, there are plans to set up state-organized, controlled lung cancer screening programs with a quality assurance system like that put to practice for mammographic screening. In the absence of an invitation system, however, it may take many years to get the message across to family physicians as well as to women. Exploiting the presence of women in mammographic screening sites to identify their risk status and to inform them, but also their referring physicians, about the benefits and availability of lung cancer screening is prudent to promote its dissemination right away, here and now.