

## Screening Mammography Visits Provide Opportunities to Advance Tobacco Cessation Efforts

- While a majority of adult smokers would like to quit, fewer than one in 10 people report they have been able to do so.
- Evidence-based tobacco cessation programs could help to improve cessation rates.
- In an effort to increase awareness and improve access to tobacco cessation resources, a team of clinicians and staff at Massachusetts General Hospital launched an initiative to engage smokers during screening mammography appointments.
- A recently published study shows the initiative has increased referrals while introducing more women to the Mass General community health center-based tobacco cessation program Living Tobacco-Free.

**T**obacco use is the leading cause of preventable death in the United States. Resources are available to help reduce tobacco use, especially cigarette smoking, but smokers are not always aware of them. According to a 2017 analysis in the Morbidity and Mortality Weekly Report from the Centers for Disease Control and Prevention, seven in 10 adult cigarette smokers in the U.S. expressed a desire to quit smoking and roughly half had tried to quit in the previous year, but fewer than one in 10 were successful. One possible reason: less than one third of smokers used evidence-based cessation methods such as cessation counseling or medications during their attempts to stop smoking.

Two years ago, in an effort to improve access to cessation resources, a team of radiology physicians, staff and tobacco cessation coaches at Massachusetts General Hospital launched an initiative to engage smokers during screening mammography visits. These appointments are an established "healthcare touchpoint" for millions of women nationwide and for thousands of women in the Boston area. The goal was to use such visits as opportunities to engage current smokers with a Mass General community health center-based tobacco cessation program. The physicians reported on the initial experience of this initiative in a paper published early this year.

### Providing 'Value-Based' Care by Collaborating with Other Disciplines

This initiative grew out of an effort in radiology to provide more integrated, "value-based" care, by using every patient visit for necessary imaging as a care opportunity to address the patient's overall health. To this end, the Mass General team sought to leverage screening mammography visits at the Revere HealthCare Center to improve engagement with other healthcare services, partnering with internists and tobacco cessation coaches at the center to achieve this goal. They chose the Revere HealthCare Center because the communities it serves are impacted by tobacco use more than many others in the Boston area.

The team launched the initiative in early 2018, when Mass General Imaging at the Revere HealthCare Center added two sets of questions to the intake questionnaire for screening mammography patients (in both English and Spanish). These questions assessed the smoking histories of all patients and asked current smokers whether they would like to connect with the Mass General Community Health Associates' Living Tobacco-Free Program, which serves patients of the community health centers in Charlestown, Chelsea, Everett and Revere. Patients could request a mix of mailed information on cessation resources, over-the-phone coaching and in-person counseling. The staff from the Mass General Division of Breast Imaging referred patients to the cessation program for requested services.

Have you ever smoked cigarettes?

Yes  No

What age did you start smoking cigarettes? \_\_\_\_\_ years old

Do you smoke cigarettes now?

Yes ... How much do you smoke on a typical day? (Please check a box below.)

No ... How long ago did you quit? \_\_\_\_\_

... Before quitting, how much did you smoke on a typical day? (Please check a box below.)

Less than a quarter pack  Quarter pack  Half pack  One pack

1.5 packs  2 packs  3 packs  More than 3 packs

**If you currently smoke:**

Would you want information in the mail about programs that can help you quit?  Yes  No

Would you want to speak with a quit-smoking coach by phone? (A coach from the community health center-based tobacco cessation program will call you.)  Yes  No

Would you want to meet with a quit-smoking coach in person at the community health center? (A coach from the community health center-based tobacco cessation program will call to make an appointment.)  Yes  No

**Figure 1:** The community health center identifies patients interested in receiving information about smoking cessation using additional questions on the screening mammography patient intake questionnaire.

## Screening Mammography Boosts Tobacco Cessation Referrals

Engaging women during screening mammography visits has proved to be an effective means of introducing more patients to the tobacco cessation program. In a study reported in the *Journal of the American College of Radiology* in January 2020, the Mass General team found that one in ten women presenting for screening mammography between April and September 2018 were current smokers and, of those patients, one in four requested a referral to the program. This finding has important implications for efforts to reduce tobacco use. It suggests nationwide implementation of similar interventions may help improve awareness and access to tobacco cessation resources for women at a population level.

This initiative could especially provide value by extending the reach of the tobacco cessation program, since nearly seven in 10 women who requested a referral had not previously been served by the program. This finding underscores the potential of leveraging screening mammography visits to help advance tobacco cessation efforts and to provide novel avenues for expanding population health outreach efforts in general.



**Figure 2.** Mass General is working to increase engagement with tobacco cessation resources by engaging patients during screening mammography visits and providing referrals to those who indicate they are interested in quitting smoking. Shown here, Department of Radiology patient service coordinator Sandra Figueroa, a member of this initiative, offers information on screening mammography and tobacco cessation at the Revere HealthCare Center.

## Radiologists: Partners in Community Health

The team behind the initiative noted that the richness of the healthcare ecosystem in Boston and at Mass General, and the readiness of stakeholders from different parts of a complex healthcare system to collaboratively develop ways to better serve their communities, was key to its success. In particular, the initiative relied on a close partnership between Mass General's radiologists, breast imaging staff and community health center and tobacco cessation coaches. It also built off of the strengths of well-established Mass General breast imaging and tobacco cessation programs with long-standing commitments to patient and community outreach. But what can radiology practices in other types of healthcare environments take away from this initiative?

According to the team, the broader opportunities evidenced by this study are just as important as the results. The findings suggest that, no matter where they practice, radiologists can help advance population health goals and add value to imaging visits through engagement with other stakeholders in the healthcare system. These stakeholders could include radiology technologists and front desk staff, physicians and other care providers from various specialties, community health workers, patient advocacy groups and patients themselves. Working closely with such partners, radiologists can identify care opportunities and collaboratively create novel solutions tailored to the resources and needs of their own communities.

### Further Information

For more information about the screening mammography-based tobacco cessation initiative, please contact [Gary X. Wang, MD, PhD](#), Department of Radiology, Massachusetts General Hospital. We would like to thank Dr. Wang, Efen Flores, MD, Department of Radiology, Massachusetts General Hospital, Patricia Daunais, Operations Manager, Department of Radiology, Massachusetts General Hospital, and Jonina Gorenstein, JD, Program Manager, Living Tobacco-Free Program, Massachusetts General Hospital, for their advice and assistance in preparing this article.

To learn more about the Living Tobacco-Free Program community health resources available to help patients quit smoking cigarettes and stop using other tobacco products, such as chew, cigars, shisha and e-cigarettes, please contact [Jonina Gorenstein, JD](#), Program Manager, or visit the website at [www.massgeneral.org/tobaccofree](http://www.massgeneral.org/tobaccofree). Providers can also refer patients in Epic via "Add Order." Search on "Tobacco" and choose "MGH Community Health Associates." To make an appointment directly, patients can call the Living Tobacco-Free Program at 781-485-6210 or email [MGHLivingTobaccoFree@Partners.org](mailto:MGHLivingTobaccoFree@Partners.org).

### References

Wang GX, Narayan AK, Park ER, Lehman CD, Gorenstein JT, Flores EJ. Screening Mammography Visits as Opportunities to Engage Smokers With Tobacco Cessation Services and Lung Cancer Screening [published online ahead of print, 2020 Jan 10]. *J Am Coll Radiol*. 2020;S1546-1440(19)31450-4. doi:10.1016/j.jacr.2019.12.008

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