

Creating a Healthy Community After the Pandemic: Reinvigorating Routine Cancer Screening With Community Support Systems

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In 2015, the Institute of Medicine published a framework for creating “healthy, resilient, and sustainable” communities after a disaster.¹ This body of work was designed to provide a guide for identifying key stakeholders and resources during recovery from a disaster, which was defined as “a serious disruption of the functioning of a community or a society involving widespread human, material, economic or environmental losses and impacts, which exceeds the ability of the affected community or society to cope using its own resources.” This comprehensive 505-page report highlighted that recovery from a widespread hurricane with significant losses to physical structures would call on different resources and external support than recovery from a pandemic such as that caused by the severe acute respiratory syndrome coronavirus disease 2019 (COVID-19). Importantly, the report highlighted that the national Hospital Preparedness Program, designed in 2002 to support a coordinated response to bioterrorism attacks, needed to be updated to incorporate critical community partners and coalitions outside of the hospital walls during the recovery phase to ensure a return to healthy communities, especially for those vulnerable to health-related disparities before the disaster. This expansion of recovery teams beyond inpatient hospital programs was based primarily on lessons learned from events such as Hurricanes Katrina and Sandy in 2005 and 2012, respectively.

Within the accompanying publication by Fedewa and colleagues from the American Cancer Society (ACS) is an example of one such health care coalition that has assisted, and with continued support likely will continue to assist, communities in their restoration to a “healthier” state after the pandemic.² The ACS and the National Football League (NFL) in 2018 provided \$100,000 in grant funding to each of 32 community health programs to address disparities in breast cancer mortality, primarily in underserved populations, with a focus on African American communities. One component of the program was to support “clients” or community members in obtaining mammographic screening through navigation, reminders, and education as well as the health care providers with data feedback and electronic health record enhancements. In just 1 year, from 2018 to 2019, an 18% increase in screening rates was observed across the 32 programs, with 53.9% of eligible 50- to 74-year-old women undergoing screening in July of 2019 versus 45.8% in 2018. The authors then reported the same monthly data for 2020, 5 months after the World Health Organization had declared the novel coronavirus (COVID-19) outbreak a global pandemic. At that time, the breast cancer screening rate was 49.6%, which was 8% less than the rate in the previous year but still above the overall rate observed at the start of the grant program. The clinics affected the most by the pandemic were those with higher rates of Black community members, which were defined as greater than 51%. Within these 11 community centers, the mammographic screening rate jumped from 49.9% to 55.3% in 2019 and then decreased past the baseline to 48.9% in July 2020. Communities with a high rate of uninsured patients, which was defined as greater than 26.6%, saw decreases in 2020 but not a return to 2018 levels (from 37% to 43.4% to 42%), and those with a high Hispanic population additionally did not see the same decreases found in the Black communities (from 48.6% to 57.9% to 54.1%). Had the prepandemic rates of increased screening continued with community-based education programs, it was estimated that more than 63% of eligible patients would have undergone mammography in 2020.

With more than 1 year of data, as more than 14 months have passed since the start of the COVID-19 pandemic, additional publications are emerging that are detailing the impact of this “disaster” on cancer screening and stage presentation both in large populations and in those at risk for health care disparities. Sprague et al³ reported outcomes from the

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first 5 months of the pandemic from 62 breast imaging facilities participating in the Breast Cancer Surveillance Consortium. Key findings included the dramatic decreases to 1.1% of expected screening volumes during April 2020 with a return to 89.7% of the volume of expected screening examinations by July 2020. In this data set, greater disparities were noted in Hispanic and Asian populations versus Black populations, in which screening rates returned to 96.7% of the baseline. The Breast Cancer Surveillance Consortium data, however, report only the volume of scans performed and do not detail the screening rate within the population of interest. Within the ACS Community Health Advocates Implementing Nationwide Grants for Empowerment and Equity (CHANGE) grant program, the imaging centers with a high percentage of Black representation returned to 98% of the 2018 screening baseline and to 88% of the 2019 screening baseline but technically started at a lower than desired screening rate in women aged 50 to 74 years. The cumulative “loss” of screening examinations in this population is, therefore, likely to have a greater impact because of the higher rate of missed cancers both in those who ultimately return for screening and in those who are not represented in the baseline screening volumes before the pandemic. This disparity will likely be exacerbated by the younger age shift for African American women with breast cancer because the volume and screening rate reported currently are limited to guideline recommendations for women over the age of 50 years.⁴ A report from a series of academic and community health centers in North Carolina provided a similar picture of a dramatic decrease in screening in the first 3 months of the COVID-19 pandemic with a return to nearly normal volumes by August 2020.⁵ The return to screening differed by breast cancer risk and insurance status but not by age or race. Again, however, this study provided comparisons with baseline screening volumes versus population screening rates among racially distinct groups. In a small single-institution study from Italy, a 2-month stop in mammographic screening led to an 11% increase in patients with node-positive breast cancer and a 10% increase in patients with stage III breast cancer presenting for treatment.⁶ It is, therefore, estimated that in the coming year, we will see similar reports from larger data sets highlighting the effects of delayed breast cancer screening on populations with anticipated increases in later stage disease for those already at risk for stage disparities.

The ACS CHANGE grant outcomes from Fedewa and coauthors, however, provide an indication that targeted community partnerships and education programs will enable a quicker return to baseline screening and,

more importantly, to a higher rate than that before the pandemic. It will be vital to “catch up” on the missed screening examinations from the first months of the pandemic and increase baseline screening rates in populations already at risk. The NFL-supported CHANGE program appears to have been able to bolster increased screening adherence through the use of telehealth communication platforms because the average screening rate for the 32 programs did not return to the 2018 baseline. Chen et al⁷ recently published an analysis of administrative claims data from Medicare Advantage plan users and identified dramatic declines in breast, colorectal, and prostate cancer screening rates during March through May 2020, with nearly complete recovery of screening rates by July 2020. Although these findings match those published by Sprague et al³ and Nyante et al,⁵ Chen and coauthors found an association between patient utilization of telehealth and receipt of cancer screening, with no differences noted across low and high socioeconomic status groups. It was proposed by these authors that the virtual telehealth appointments may have enabled individuals to still receive medical evaluations for other concerns and also obtain encouragement for rescheduling screening examinations. Innovative navigation and education platforms delivered via mobile or telehealth platforms from trusted health sources will likely emerge as important tools to support increased cancer screening rates across all populations in the postpandemic era. The Screening Working Group of the COVID-19 and Cancer Global Modelling Consortium (CCGMC) recently published a multipronged approach for resumption of cervical cancer screening as the pandemic recedes. Recommended were three primary approaches, risk based screening; awareness campaigns for those in areas of high deprivation and HPV self sampling.⁸ Although some cancer screenings could be performed at home in the future (colon cancer screening with stool tests), mammography will remain the mainstay for breast cancer screening for the foreseeable future and will require an in-person breast imaging examination.⁹ Multiple societies and organizations as a result are now actively campaigning to reverse their early 2020 recommendations to postpone all cancer screenings.¹⁰ The recovery to a healthy and sustainable community after the pandemic will require multidisciplinary and diverse support from health care and community partners. Cancer screenings, particularly those for breast cancer, will be an important measure of this recovery, and through novel and supportive community coalitions such as the one supported by the ACS/NFL CHANGE grant, individuals, including those from underserved communities, can

safely be identified and treated at earlier stages when survival and recovery are the most favorable.

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Lee G. Wilke is a founder/minority stock owner in Elucent Medical (whose device is not discussed in this editorial), is a research committee chair for the American Society of Breast Surgeons, and is a board member for the Alliance for Clinical Trials.

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