

## Economic Framework: Patient Navigation Services to Increase Breast, Cervical, and Colorectal Cancer Screenings and Advance Health Equity

The analytic framework postulates the pathway leading from patient navigation services to increased breast, cervical, and colorectal cancer screening, improved health equity, and associated economic outcomes.<sup>1</sup>

Patient navigation services are offered to people who (1) are eligible to receive breast, cervical, or colorectal cancer screening,<sup>2</sup> and (2) self-identified as part of a historically disadvantaged racial or ethnic population, have a lower income, or both. Patient navigation services improve participants' knowledge, attitudes, and skills regarding screening for breast, cervical, and colorectal cancers; increase their awareness of available healthcare system and community resources, and social and healthcare services; and increase or improve their access to services, social support, and quality of care received. These improvements can lead to increases in participants receiving recent or repeat cancer screenings; increases in follow-up diagnosis and treatment (if indicated by screening results); and decreases in cancer-related incidence,<sup>3</sup> morbidity, and mortality; leading to improved health equity.

The economic framework postulates seven components of intervention cost of patient navigation services. Patient navigators' wages and benefits constitute the main driver of cost; other components include patient recruitment, materials and supplies, supervision, training, overhead, and cost of additional intervention. Cost per additional person screened captures the incremental cost of each additional screening resulting from the intervention. Intervention benefits include actual change in healthcare cost (i.e., screening and diagnosis – both considered cost drivers), modeled change in healthcare cost (i.e., cancer treatment – considered a cost driver), and increase in productivity.

The framework conceptualizes summary economic outcomes as cost-effectiveness, cost-benefit, or return on investment. Cost-effectiveness is intervention cost net of averted healthcare cost per quality-adjusted life year saved or disability-adjusted life year averted. Increases in institutional revenue are postulated to increase the return on investment.

### References

1. Framework based on information provided in Freeman HP and Rodriguez RL. History and principles of patient navigation. *Cancer* 2011;117(S15):3537-40.
2. USPSTF recommendations for [breast](#), [cervical](#), and [colorectal](#) cancer screening.
3. Reduced incidence may not apply to all three cancers (USPSTF recommendations for [breast](#), [cervical](#), and [colorectal](#) cancer screening).