Digital Self Service for Breast Cancer Screening: Early Experience with a Direct-to-Patient Program in a Federally Qualified Health Center

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Background

Federally qualified health centers (FQHCs) serve lower income populations that have disproportionately low cancer screening rates; less than 50% of eligible women seen in FQHCs are up to date with mammograms[1]. Additionally, many women at elevated breast cancer risk are unaware of their risk status[2], limiting access to genetic counseling and enhanced surveillance.

Unfortunately, primary care providers report a lack of time to counsel women about screening and calculate individual risk scores[3,4,5]. A digital health program delivered directly to patients outside the confines of a clinical visit could overcome many of these barriers. We evaluated a new "digital self-service" program for breast cancer screening in a pilot study in a FQHC in North Carolina. Kintegra is a FOCUS partner – a public health initiative of Gilead Sciences that partners with organizations to transform health systems to routinize breast cancer screening and linkage to care to advance timely diagnoses.



Figure 1. Kintegra Health Breast Cancer Navigation Team

Methods and Materials

Each week, an automated query at the FQHC identified English or Spanish-speaking women aged 45 to 75 years who had no record of a screening mammogram in the prior 12 months and were scheduled for a primary care appointment in the next 9 to 16 days. The new digital health program, called mPATH-Breast, sent identified women an automated text message inviting them to determine their personal risk for breast cancer by clicking a hyperlink that launched the mPATH-Breast web app.

The web app, available in English and Spanish, included a landing page informing women of the importance of breast cancer screening, allowed women to estimate their personal lifetime risk using the Gail model, confirmed they were due for routine screening, displayed a brief animated decision aid video, and allowed them to request either a mammogram or a referral to a high risk breast clinic as appropriate based on their risk score. mPATH-Breast then automatically transmitted mammogram and referral requests to the FQHC scheduling team and generated a one-page summary of each patient's app use for upload into the electronic health record (EHR).

Results

Between June 2025 and October 2025, the mPATH-Breast program sent text message invitations to 491 women, of which 466 (95%) were successfully delivered.

Of the 466 women reached, 127 (27%) clicked the embedded hyperlink, and 72 (57%) validated their age. Among those who validated age, 48 (67%) estimated their personal lifetime risk for breast cancer, and 60 (83%) completed the full mPATH-Breast program.

Twelve women (17%) had started the program but had not yet completed it at the time of analysis.

Among the 60 completers, 22 (37%) were due for screening, and 15 of these (68%) requested a mammogram.

Thirty-three women (55%) were already up to date on screening, including three with a lifetime risk greater than 15%.

One woman (1%) reported a high-risk gene, and four (7%) reported a prior history of breast cancer.

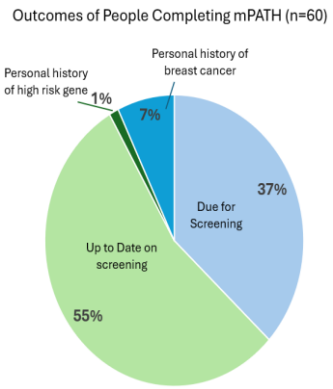
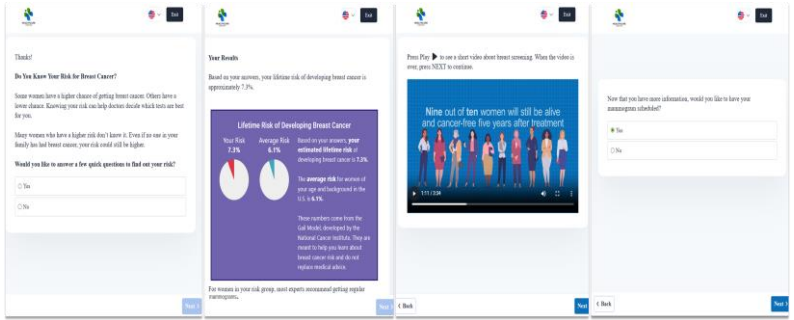


Chart 1. Outcomes of mPATH Completion

Figure 2. mPATH-Breast Program Screenshots



Discussion

Women who **estimated their personal lifetime risk** were **far more likely to request a mammogram (82%)** compared with those who **skipped the risk tool (20%)**.

This suggests that **engaging with the risk estimator may motivate screening behavior**—perhaps because it helps women personalize their risk and perceive screening as more relevant or urgent.

Among the 48 women who estimated their personal lifetime risk of developing breast cancer, estimated lifetime risk ranged from 2.3% to 46.1% (mean 8.6%)

Table 1. Response Rates

Response Rates	Number	%	Notes
Number invited	491		
Number reached (msg delivered)	466	95%	of everyone invited
Number engaged (clicked link)	127	27%	of everyone reached
Validated age	72	57%	of everyone engaged
Estimated personal risk	48	67%	of everyone validating age
Number completed mPATH	60	83%	of everyone validating age

Conclusions

This early pilot demonstrates that a direct-to-patient digital program can effectively engage women in FQHC settings, where mammography uptake is otherwise low. Nearly all women who started the program completed it and chose to estimate their personal breast cancer risk; most women found to be overdue requested a mammogram.

Notably, more than half of women reported having a recent mammogram that was not documented in the EHR, underscoring the common challenges of capturing screening completed outside the health center and the importance of accurate record integration.

Taken together, these results show that a direct-to-patient digital program can improve risk awareness, drive immediate action, and offer a scalable, patient-centered strategy to strengthen breast cancer prevention and early detection in underserved populations. Future research should examine strategies for increasing patient engagement with digital tools for screening.

Disclaimer

Gilead Sciences' FOCUS Breast Cancer Pilot is a public health initiative that seeks to enable routine screening and linkage for breast cancer in accordance with public health guidelines to advance timely diagnoses. FOCUS Breast Cancer Pilot Program awards do not fund beyond linkage to pre-treatment care.

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