If we build it, they will come: A healthcare system's approach to improve identification of at-risk individuals, increase genetic counseling referrals, and build patient management using a digital tool and EMR

TriHealth Precision Medicine

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Abstract

- National guidelines recommend universal cancer risk screening to determine appropriateness of genetic testing and breast MRI
- There is widespread under-identification of individuals at increased risk of developing cancer due to multiple factors, including:
  - Gathering family history (patient knowledge and clinical workflow barriers)
  - Time constraints (healthcare system barrier)
  - Complex genetic testing criteria (provider knowledge barrier)
- TriHealth's approach to address these limitations:
  - Engaged with Women's Service Line leadership to support a system-wide implementation of the CARE Platform™, a digital, HIPAA-compliant, patient-facing tool, to standardize screening protocol
  - Patients ages 21-65 being seen for an annual gyn visit are invited to complete the survey electronically prior to their appointment, addressing time constraints
  - EMR integration of risk score and clinical decision support addresses knowledge and systemic barriers

We show that a digital, integrated cancer risk assessment tool betters identifies high-risk patients and leads to increased referrals and better access to cancer prevention services

Methods

- Prior to appointment, eligible patients invited to web-based platform
- Personal and family history assessed by Tyrer-Cuzick risk algorithm (v8.0)
- Personal and family history reviewed for genetic testing criteria based on published HBOC, Lynch, and FAP guidelines (NCCN)
- Reviewed data from April 2021 to March 2023 from completed assessments
- Reported outcomes for risk stratifications and resulting referrals by ObGyn provider
- Compared referral numbers to those prior to CARE Program implementation
- Approved through TriHealth IRB, #23-067

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- TriHealth Precision Medicine Team
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Results

Figure 1: Referral Program Pre-CARE Implementation

Figure 2: Referral Program for CARE Program Sites

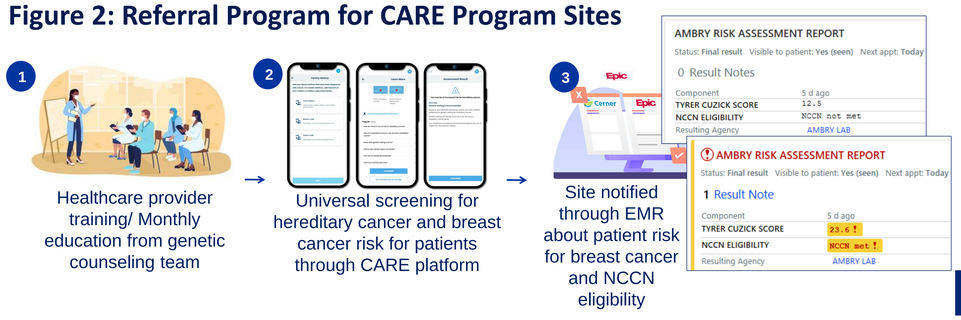


Figure 3: Patient Outcomes from Digital Patient Management Program

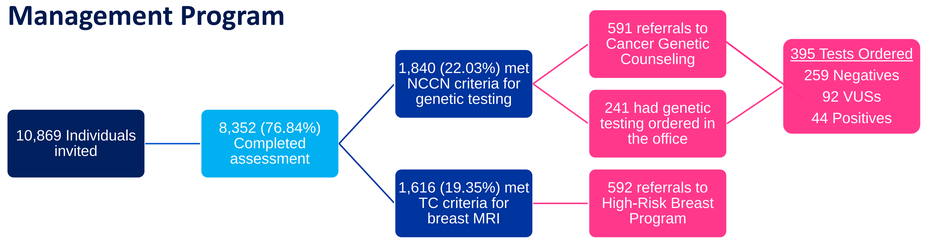
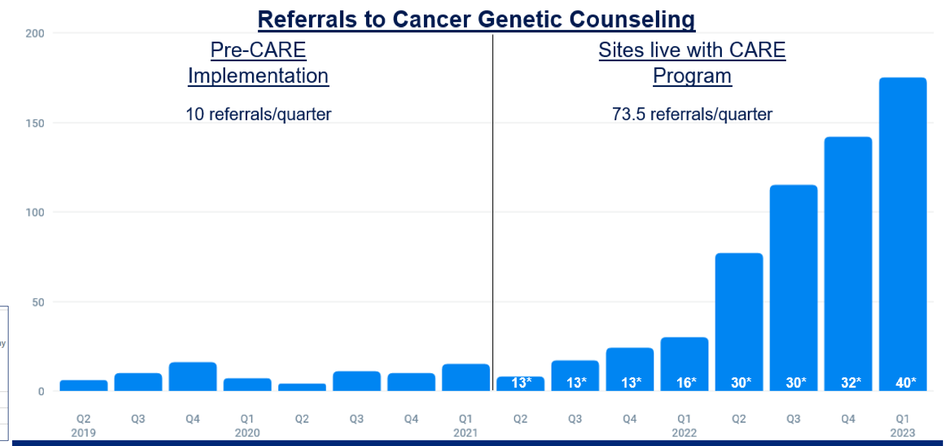
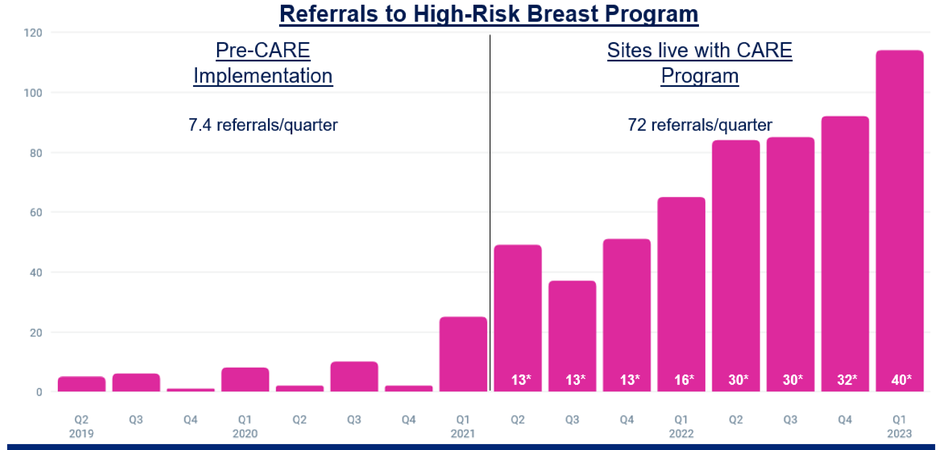


Figure 4: Provider Referral Rates Before and After Digital Patient Management Program



635% Increase in Referrals to Cancer Genetic Counseling



870% Increase in Referrals to High-Risk Breast Program

*Number of CARE providers is shown in white in each column

KEY TAKE AWAY POINTS

- Close collaboration between Precision Medicine and Women's Service Line allowed for standardization of risk assessment, resulting in more personalized care.
- The CARE Program better identifies high-risk patients by addressing both provider knowledge and clinic time constraint barriers.
- EMR-integration of risk scores paired with actionable Best Practice Advisors at the time of appointment improves guideline-based referral rates to genetic counseling and high-risk breast screenings.
- Further research is needed to understand barriers to completing genetic counseling, genetic testing, and/or high-risk screening after referral.