

Supplementary Material

Frontend Support Features for Patient and PCP **Engagement in Population Genetic Screening**

Before Visit

- Direct patient messaging · Educational videos & online
- testing consent through NSC patient portal

During Visit

- Pre, go-live operational &
- clinical application education On-site go-live day support
- EMR alerts for ordering the test if patient consented

Patients



Returning Results

- Genetic results stored
- discretely in EMR NSC Patient access to
- results · Reporting tools for clinician to view if patient adherent to
- screening recommendation Access to content experts if additional care is needed

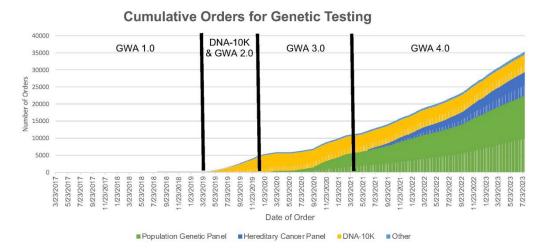
Long Term Follow Up

- Automated messaging to the patient about how to access test results
- Telehealth visits for patients with positive results
- Defined pathway for next care steps

Supplemental Figure 1: Frontend Support Features for Patient and PCP Engagement in **Population Genetic Screening**

Legend: The NorthShore Center for Personalized Medicine program implemented multiple components to support widespread PCP adoption and engagement. (a) patient educational video and consent via the NorthShore Connect (NSC) patient portal; (b) PCP electronic clinical decision support and EHR ordering; (c) access to a NorthShore lab for phlebotomy; (d) In-house or outsourced (e.g., Color Genomics, GeneDx) NGS and PGX testing panel; (e) discrete reporting of results available in the EHR; (f) coordination of results with PCP health maintenance visits; (g) automated patient messaging about next steps; (h) access to genetic counseling; (i) return of results on the patient portal; and (j) clinical follow-up with PCP and specialists. Abbreviations: Primary care physician (PCP); electronic medical record (EHR)

Timeline of Cumulative Genetic Testing



Supplemental Figure 2: Timeline of Cumulative Genetic Testing

Legend: Growth of genetic testing across the spectrum of PMED primary care initiatives involving iterative versions of GWA, BHA, and DNA10K.