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Brigham and Women's Hospital Opens Preventive Genomics Clinic

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NEW YORK – Brigham and Women's Hospital announced today that it has opened the Preventive Genomics Clinic, an academically affiliated clinical service to provide comprehensive DNA sequencing, interpretation, and reporting of disease-associated genes for healthy adults and their children who want to understand and mitigate their risk of future disease.

The Preventive Genomics Clinic is different from consumer-facing labs, the hospital said. It requires that individuals be evaluated in person by genetics specialists before testing is ordered; will help people order from a menu of the most appropriate tests for their medical needs; and will ensure that all medical and laboratory reports will be shared with the individuals and with their other medical providers in order to be integrated into their day-to-day health care.

At the initial appointment, a board-certified medical geneticist and genetic counselor will collect a personal and family history and conduct a detailed physical examination to evaluate the individual and that person's family for specific genetic risks that should be pursued with diagnostic genetic tests, the hospital said. If no risks are detected, the individual will be offered choices from a menu of gene panels from several different academic and commercial labs for anywhere from a few hundred genes to a few thousand genes. The most comprehensive choice will enable patients to have high quality whole-genome sequencing done at the Broad Institute, with interpretation and reporting of approximately 3,700 disease-associated genes through the Laboratory for Molecular Medicine within the Partners Personalized Medicine Program.

After receiving their clinical findings, patients will be referred to specialists as needed. They will also be offered the opportunity to enroll in a National Institutes of Health-funded follow-up study, in which a research team will track key outcomes for several years.

"Preventive genomics is not yet recommended as standard of care," Robert Green, a medical geneticist at Brigham and Women's and director of the Preventive Genomics Clinic, said in a statement. "But for over two decades, our NIH-funded, randomized trials in translational genomics have generated consistent evidence that there are more potential medical benefits and fewer risks than previously considered. It is time for this technology to be offered in a clinical context, under the care of genetics experts, to individuals who wish to be proactive about their health."

Because the testing services offered by the clinic aren't typically covered by health insurance plans, the hospital is working with several lab vendors to raise philanthropic funds in order to provide free or lower cost services as needed, particularly for minorities who have historically been underrepresented in genomics.

Early test offerings in the clinic will focus on disease risks for single-gene disorders, particularly hereditary cancers and hereditary heart problems, reproductive risks, and pharmacogenetic markers. The clinic also plans to add polygenic risk scores to help identify people at high risk for common conditions such as heart disease, diabetes, and atrial fibrillation.

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