Introduction
Precision medicine has been defined as an approach for protecting health and treating disease that accounts for a person’s genes, behaviors, and environment, with interventions tailored to individuals or groups.¹ Recent advances in molecular diagnostics and targeted therapeutics have driven Leading Health Systems (LHS) to increase investments in precision medicine programs. However, system-wide adoption of precision medicine programs across LHS has been slow. In March 2019, The Academy solicited input from LHS executives to identify top approaches to launching an enterprise-wide precision medicine program.

Implementing Precision Medicine Across the Enterprise
As it stands today, health system approaches to precision medicine typically begin at the service line. An enterprise-wide approach to precision medicine is one that begins with a broadened definition of precision medicine, prioritization of investments and alignment across the enterprise, targeted areas of focus, and expanded data collection efforts. With an enterprise-wide approach in place, health systems can replicate service line models across additional targeted areas of focus.

Broaden Definition of Precision Medicine and Prioritize as a Top Strategic Initiative

- Prioritize precision medicine and ensure leaders are aligned across the enterprise.
- Incorporate social and environmental determinants of health into definition of precision medicine.
- Support ‘precision medicine champions’ at the service line level.

“There are things health systems can do today. The knowledge is available and actionable. The idea of a 5-year timeline for precision medicine is too long.”

– Chief Clinical Transformation Officer

Identify Target Areas of Focus for Initial Roll Out

- Prioritize service lines for initial roll out, and incorporate precision medicine into broad clinical practice within those service lines.
- In parallel, establish broad genetic risk testing and counseling programs across the health system. LHS can look to CDC or NIH for actionable guidance on broad genetic risk testing and counseling across the health system.

92% of LHS deliver precision medicine programs within oncology alone or across multiple service lines. The 58% of LHS that offer precision medicine within oncology alone have plans to expand to other service lines.

Expand Data Collection Beyond Genetic Testing to Broader Patient Population

- Collect data beyond standard demographics; include social, lifestyle, and environmental factors.
- Ensure appropriate data governance across the health system.

“It’s not just genomics. Precision medicine starts first with acquiring data – social determinants, environmental, etc. Then create analytics around that data to be able to separate into precision cohorts. Finally, deliver insights on those analytics to develop specific care paths around that precision cohort.”

– Chief Clinical Transformation Officer

Implement a Molecular Testing Strategy Across the Health System

- Build laboratory in-house, or align on third-party partners across the system.

“We are starting with a company that does genetic testing, which then becomes part of the individualized design of a number of layers of care. We are trying to take genetics and grow them out over 3 years to cover more and make genomics a standard.”

– Chief Clinical Transformation Officer
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Build Robust Data Infrastructure with Data Analytics, Genetic Profiling, and Decision-Support Tools

- Invest in data infrastructure with ability to integrate and normalize data across the system.
- Deliver insights based on data analytics separated by precision cohorts.
- Enhance care decision-making across the system.

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Recruit and Train Clinical Staff, Staff with Expertise in Precision Medicine, and Precision Medicine Leaders

- Recruit and train staff to support genetic testing, interpretation, and counseling.
- Attract leaders who can build robust precision medicine programs and become ‘precision medicine champions’ across the health system.

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Ensure Continuous Monitoring of Performance and Value Demonstration from the Ground Up

- Once precision medicine has been prioritized across the health system, leaders can enable continuous monitoring of performance across precision medicine programs, with service line leaders demonstrating value from the ground up.

“"It’s our job as a service line to demonstrate the value to our strategic leaders. It has to be driven at the individual physician leadership level.”

– Medical Director, Oncology
The Health Management Academy (The Academy) brings together health system leaders and innovators to collectively address the industry’s biggest challenges and opportunities. By assisting member executives to cultivate their peer networks, understand key trends, develop next-generation leaders, and partner to self-disrupt, they are better positioned to transform healthcare.

Participating Health Systems:
The 20 responding CXOs and Medical Directors represent 17 unique health systems with a median Total Operating Revenue of $3.6 billion and 422 hospitals combined. For final findings from the qualitative and quantitative study, please refer to the complete report, located on www.academynet.com/research.

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