One test. Big picture. Brighter futures.

GeneDx (Nasdaq: WGS)

April 29, 2024

GeneDx

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This presentation contains forward-looking statements under the meaning of the Private Securities Litigation Reform Act of 1995. Forward-looking statements are statements that do not relate to historical facts and events and such statements and opinions pertaining to the future that, for example, contain wording such as “may,” “might,” “will,” “could,” “would,” “should,” “expect,” “intend,” “plan,” “objective,” “anticipate,” “believe,” “estimate,” “predict,” “potential,” “continue,” “ongoing,” or the negative of these terms, or other comparable terminology intended to identify statements about the future. Forward-looking statements contained in this presentation may include, but are not limited to, statements about: our future performance and our market opportunity, and our expectations regarding full year 2024 revenue, adjusted gross margin profile and cash burn and our expectation of turning profitable in 2025. We cannot assure that the forward-looking statements in this presentation will prove to be accurate. Furthermore, if our forward-looking statements prove to be inaccurate, the inaccuracy may be material. These statements involve known and unknown risks, uncertainties and other important factors that may cause our actual results, levels of activity, performance or achievements to be materially different from the information expressed or implied by these forward-looking statements.

The forward-looking statements and opinions contained in this presentation are based on our management’s beliefs and assumptions and are based upon information currently available to our management as of the date of this presentation and, while we believe such information forms a reasonable basis for such statements, such information may be limited or incomplete, and our statements should not be read to indicate that we have conducted an exhaustive inquiry into, or review of, all potentially available relevant information. Many factors could cause actual future events to differ materially from the forward-looking statements in this presentation, including but not limited to: (i) the ability to implement business plans, goals and forecasts, and identify and realize additional opportunities, (ii) the risk of downturns and a changing regulatory landscape in the highly competitive healthcare industry, and (iii) the size and growth of the market in which we operate. The information, opinions and forward-looking statements contained in this announcement speak only as of its date and are subject to change without notice.

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WGS 1Q 2024 Results

First quarter 2024 revenue from continuing operations[1] of $61.5M with 96% year-over-year revenue growth for exome and genome test revenue

First quarter 2024 adjusted gross margins[2] for continuing operations of 61%

Eight consecutive quarter of cash burn decline: first quarter 2024 was $17M
Ending March 31, 2024 cash, cash equivalents, marketable securities and restricted cash position of $113.9 million

Reiterating the path to profitability in 2025

1 Results from continuing operations include exclude the results of the exited Legacy Sema4 diagnostic testing business. Total company results include GeneDx's continuing operations and the financial impacts of exited Legacy Sema4 business activities.
2 Adjusted gross margin is a non-GAAP financial measure. A reconciliation of GAAP and non-GAAP results is provided in the Company's earnings release dated April 29, 2024.

Updating 2024 Guidance

- Drive full year 2024 revenues between $235 to $245 million (previously $220-230 million)
- Expand full year 2024 adjusted gross margin profile to at least 60% (previously at least 50%)
- Use $70 to $80 million of net cash for full year 2024 (previously $75-80 million)
- Turn profitable in 2025 (no change)

Revenue - strong growth driven by high value whole exome and genome

91%

Increase in 1Q24 exome/genome test result volume year-over-year; +6% sequentially

$61.5M

First quarter 2024 revenue from continuing operations[1]

Revenue[1]	Q1 2024
Revenue from continuing operations	$61.5M
Growth year-over-year	***51%***
Growth sequentially	***6%***

Exome and genome test revenue	$44.0M
Growth year-over-year	***96%***
Growth sequentially	***12%***

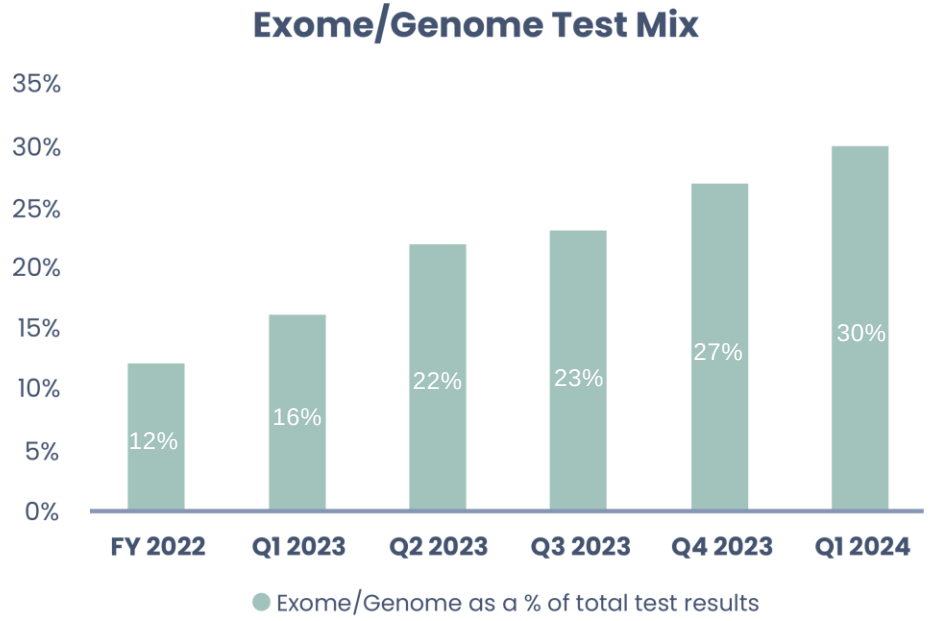
1 Total company revenues were $62.4M for the first quarter 2024. Results from continuing operations exclude the results of the exited Legacy Sema4 diagnostic testing business. Total company results include GeneDx's continuing operations and the financial impacts of exited Legacy Sema4 business activities.

Gross profit – expansion driven by mix shift, cost per test reductions

Exome/genome can be the best test for patients. They are also best for our business.

30% Exome/genome test result volume

61% Adjusted gross margins[1] for continuing operations in 1Q24, up from 56% in Q4 2023 and 34% in Q1 2023



Adj. Gross Profit for continuing operations	1Q24	QoQ Sequential	YoY
Adj. Gross Profit[1]	$37.4M	+15%	+169%
Adj. Gross Margin %[1]	61%	+489bps	+2,671bps

1 Adjusted gross profit and adjusted gross margin is a non-GAAP financial measure. A reconciliation of GAAP and non-GAAP results is provided in the Company's earnings release dated April 29, 2024.

Cash - Balance sheet bolstered to execute growth strategy

$114M[1]

Cash, cash equivalents, marketable securities and restricted cash on hand March 31, 2024

$17M[2]

Net use of cash for the total company in Q1

71%

Improvement in total company net cash burn rate year-over-year; improved 48% sequentially

8

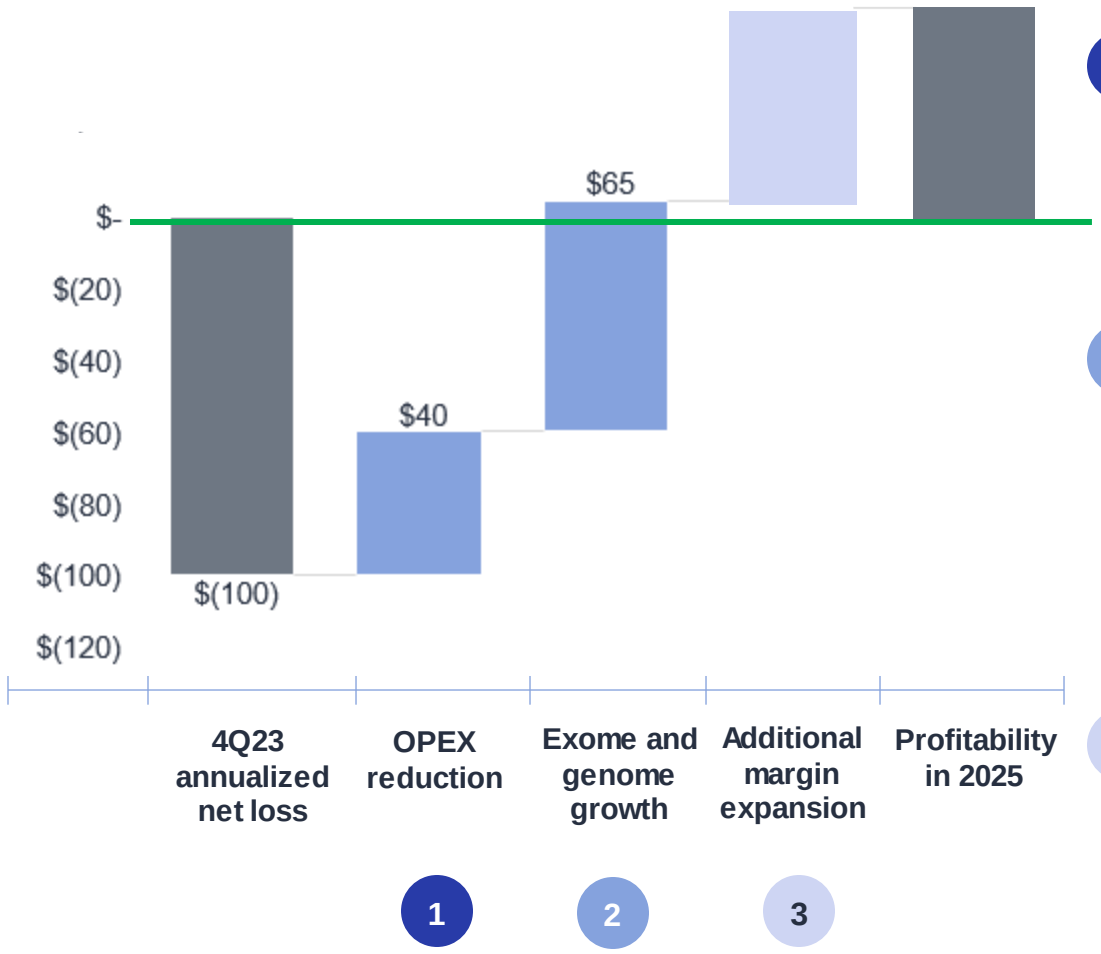
Consecutive quarters of cash burn reduction since acquiring GeneDx

1 An additional $25M in debt capacity is contingently available to use under the five-year senior secured credit facility with Perceptive Advisors entered into on October 27, 2023. The agreement provides access of up to $75 million, consisting of an initial tranche of $50 million, which has been drawn, and a subsequent tranche of $25 million is available – at the Company's option, subject to certain timelines and other defined criteria.

2 First quarter 2024 net cash burn included approximately $6 million to fund the company's annual 401K employer match, approximately $2.9 million in one-time payments to pay down previously reserved Legacy Sema4 refund requests and $800 thousand in severance payments related to our previously announced cost reduction initiative.

Our path to profitability and beyond

What we need for profitability and beyond



How we will achieve those goals

1 OPEX reduction plan

- On October 30, 2023, we enacted a plan to remove approximately $40M in annual operating expense including no less than $20M through headcount reductions which have already been completed

2 Exome and genome growth

- Revenue growth through 2025 expected to be driven by whole exome/genome testing, which operates at >60% gross margins
- Assuming no change in the current margin profile, increasing exome/genome's annual gross profit by $65M requires us to maintain growth rates in 2024 and 2025 at nearly half of what was achieved in 2023
- As exome/WGS takes more share of test mix from low/negative margin legacy panels, gross margin will rise

3 Additional opportunities

- Beyond break-even, we see significant additional upside in –
  - Further reducing exome/WGS COGS as we benefit from scale and certain in-flight AI/automation initiatives
  - Improving collection rates across the portfolio as payor coverage expands and we increase internal performance regarding collection/reimbursement performance
  - Acceleration of our biopharma/data business
  - Untapped long-term opportunities providing WGS newborn screening, interpretation as a service, and others

Statements regarding our path to profitability constitute forward-looking statements and are subject to numerous risks and assumptions. See slide 2 for more information. You should not rely upon forward-looking statements as predictions of future events

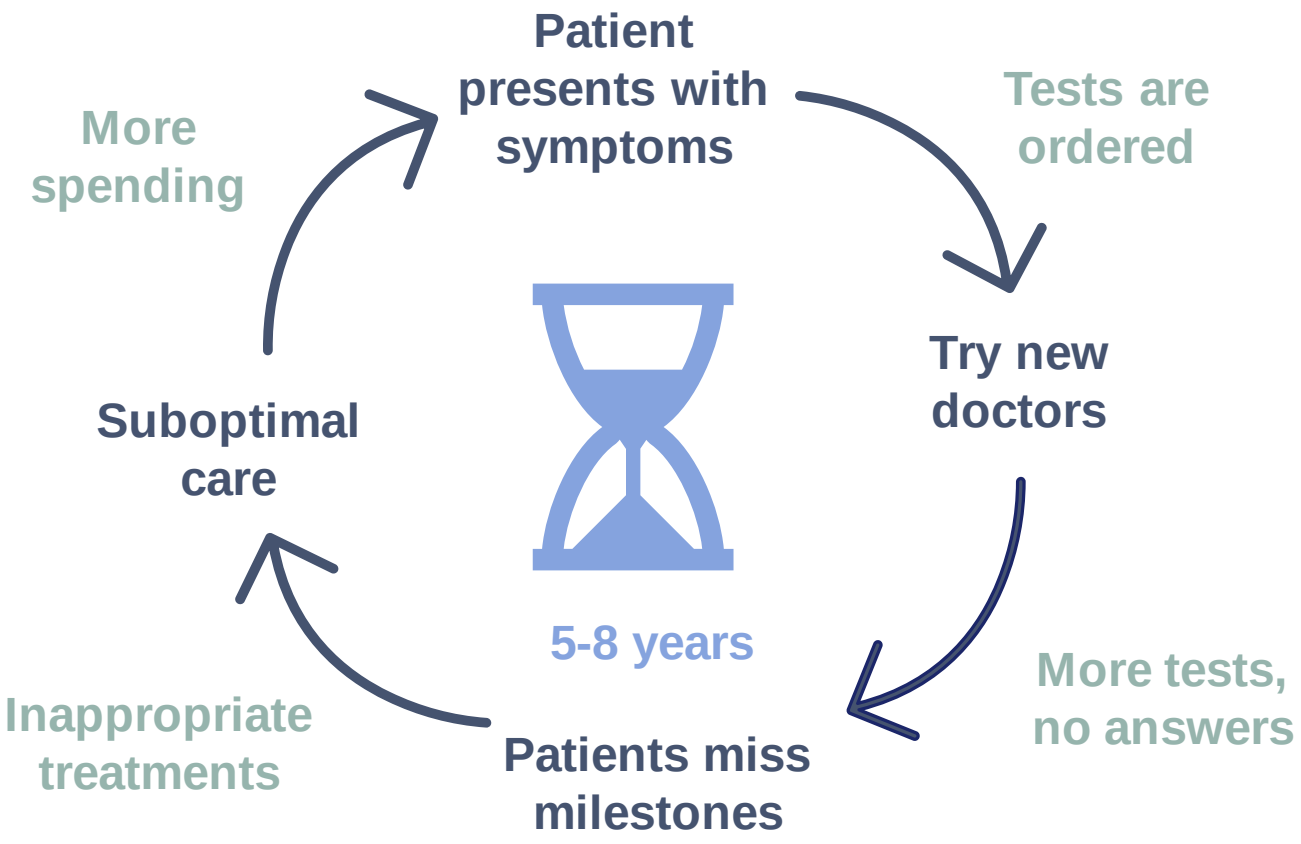
One test.
Big picture.
Brighter futures.

Appendix

GeneDx is a leader in improving health outcomes through genomic insights.

GeneDx

The problem: Lack of genomic data can lead to a cycle of misdiagnosis and suboptimal care



Missed diagnoses impact everyone

Patients/Caregivers
- Inappropriate treatments and delayed care
- Suffering

Healthcare systems
- Increased costs and burden
- Missed opportunities to develop treatments

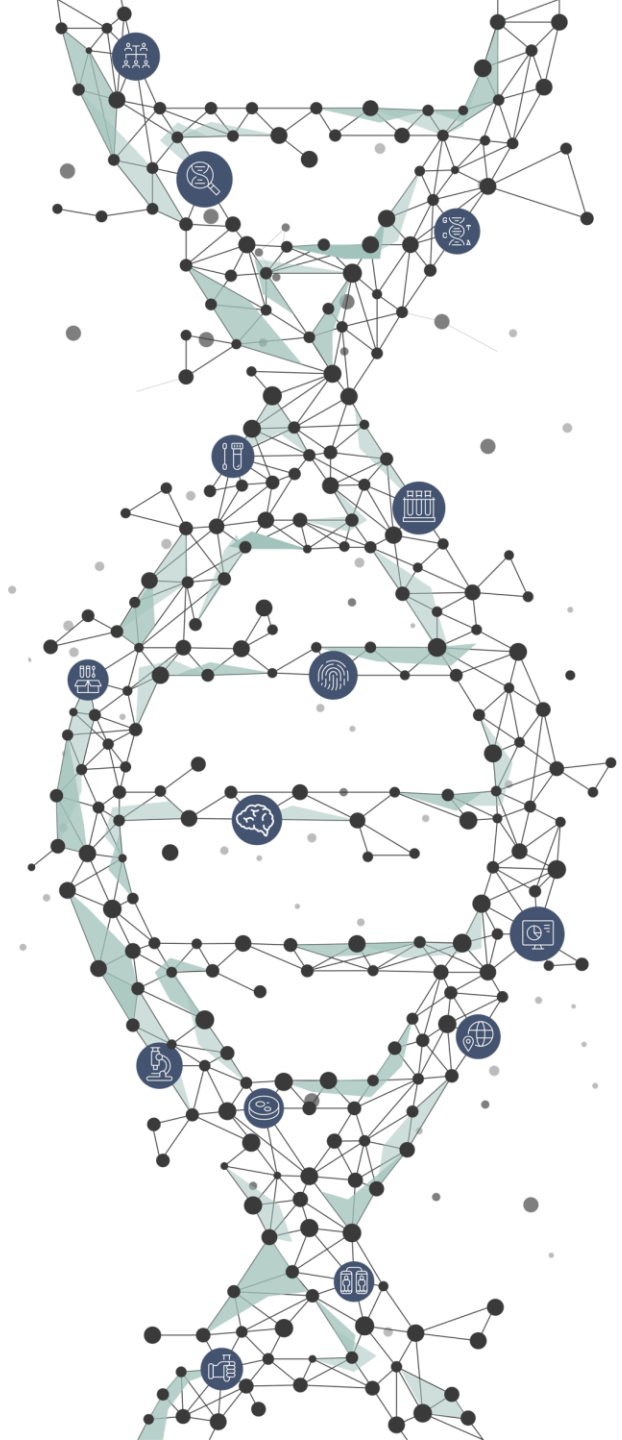
Providers
- Stress from continued patient suffering
- Inconclusive diagnoses

GeneDx offers leading exome and genome products

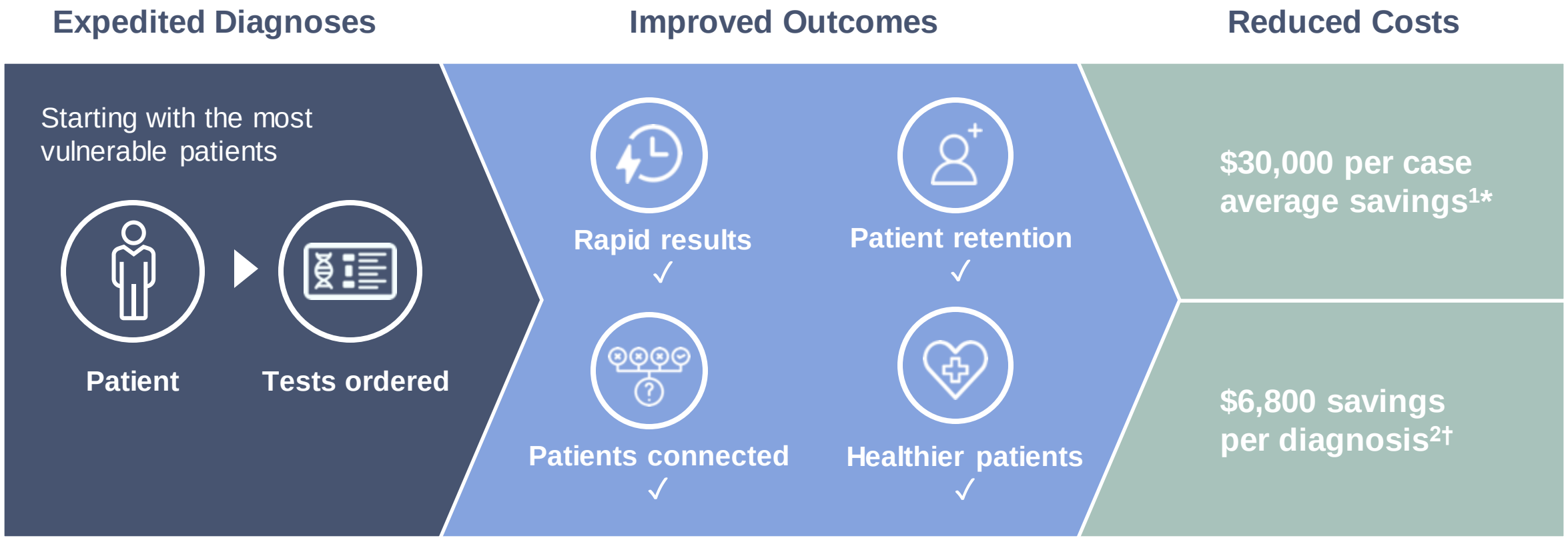
Translating complex genomic data into definitive diagnoses for patients

- **Genome sequencing** - Analyzes the entirety of an individual's DNA, which is known as the genome. The genome includes ~20,000 genes.

- **Exome sequencing** – Analyzes the protein coding regions of the ~20,000 genes in an individual's genome, which is known as the exome. The exome is thought to contain a majority of disease-causing genetic variants.



Exome sequencing can break the cycle of misdiagnosis and uncertainty



*In the NICU from reduced length of stay, unnecessary care (inpatient).
†When tested at first tertiary presentation for Pediatric Delay Disorder (outpatient).

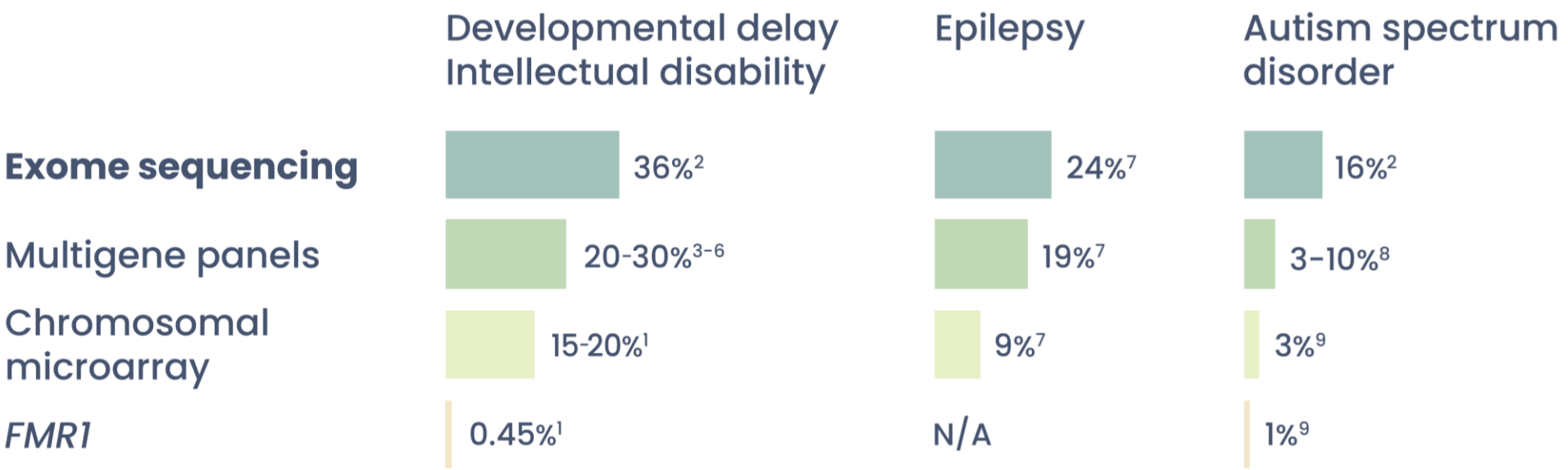
References: 1. ScienceDaily. (2017, October 19). Rapid whole-genome sequencing of neonatal ICU patients is useful and cost-effective. ScienceDaily. **2.** Tan TY, Dillon OJ, Stark Z, et al. Diagnostic Impact and Cost-effectiveness of Whole-Exome Sequencing for Ambulant Children With Suspected Monogenic Conditions. *JAMA Pediatrics*. 2017;171(9):855. doi:10.1001/jamapediatrics.2017.1755

Changing the perception of exome and genome sequencing

GeneDx has spent over a decade solving for limitations of the past and differentiating our products

	Then	GeneDx Now
Turnaround time	"These tests take months to get results"	**"I can get results in days to weeks"**
Cost	"These tests are wildly expensive"	**"Tests are affordable and widely covered"**
Interpretation	"Results are confusing and filled with useless information"	**"My patient can get a definitive diagnosis"**

Exome sequencing offers greater diagnostic yields vs. other technologies



1. Savatt JM *et al*. *Front Pediatr*. 2021;9:526779. 2. Srivastava S *et al*. *Genet Med*. 2019;21(11):2413–2421. 3. Pekeles H *et al*. *Pediatr Neurol*. 2019;92:32-36. 4. Stefanski A *et al*. *Epilepsia*. 2021;62(1):143-151. 5. Mellone S *et al*. *Front Genet*. 2022;13:875182. 6. Spataro N *et al*. *Genes (Basel)*. 2023;14(3):708. 7. Sheidley BR *et al*. *Epilepsia*. 2022;63(2):375-387. 8. Ní Ghrálaigh F *et al*. *J Autism Dev Disord*. 2023;53(1):484-488. 9. Arteche-López A *et al*. *Genes*. 2021(12):560.

GeneDx is positioned to enable a data-informed future for healthcare.

New market expansion enables us to serve more patients

GeneDx is starting with a focus on rare disease and pediatrics and then expanding into larger markets

Rare Disease & Pediatrics: $3B

Rapidly growing patient opportunity and substantial cost savings via early screening

Newborn Screening: $10B

Currently participating in studies to evaluate exome and genome sequencing at birth

Adults: $16B

Expanding into adult markets to replace multi-gene panel and individual gene tests

Conservatively, our total addressable market is ~**$30 billion**.*

**Company Estimates supported by* DefinitiveHC diagnosis data.

We're focused on the Rare Disease & Pediatrics market today

Rare Disease & Pediatrics: $3B

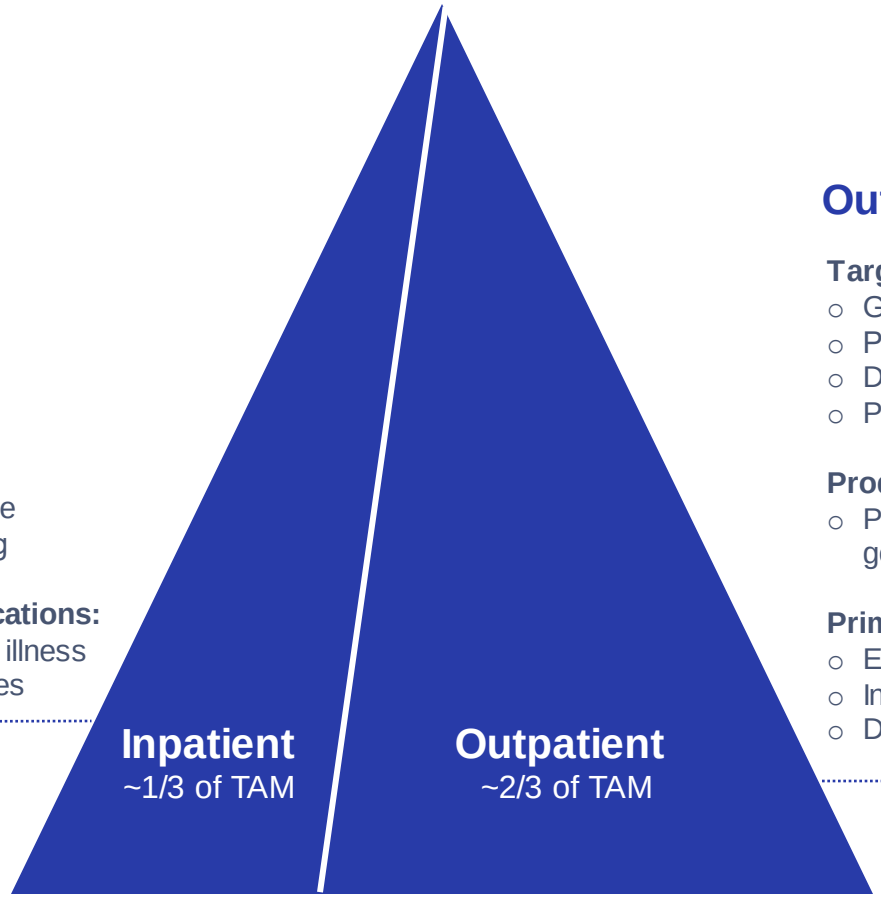
Rapidly growing patient opportunity and substantial cost savings via early screening

Inpatient

Target Clinicians:
- Geneticists
- Neonatologists

Products:
- Primarily rapid whole genome sequencing

Primary Clinical Indications:
- Unexplained critical illness
- Congenital anomalies



Outpatient

Target Clinicians:
- Geneticists
- Pediatric Neurologists
- Developmental Pediatricians
- Pediatricians (long-term)

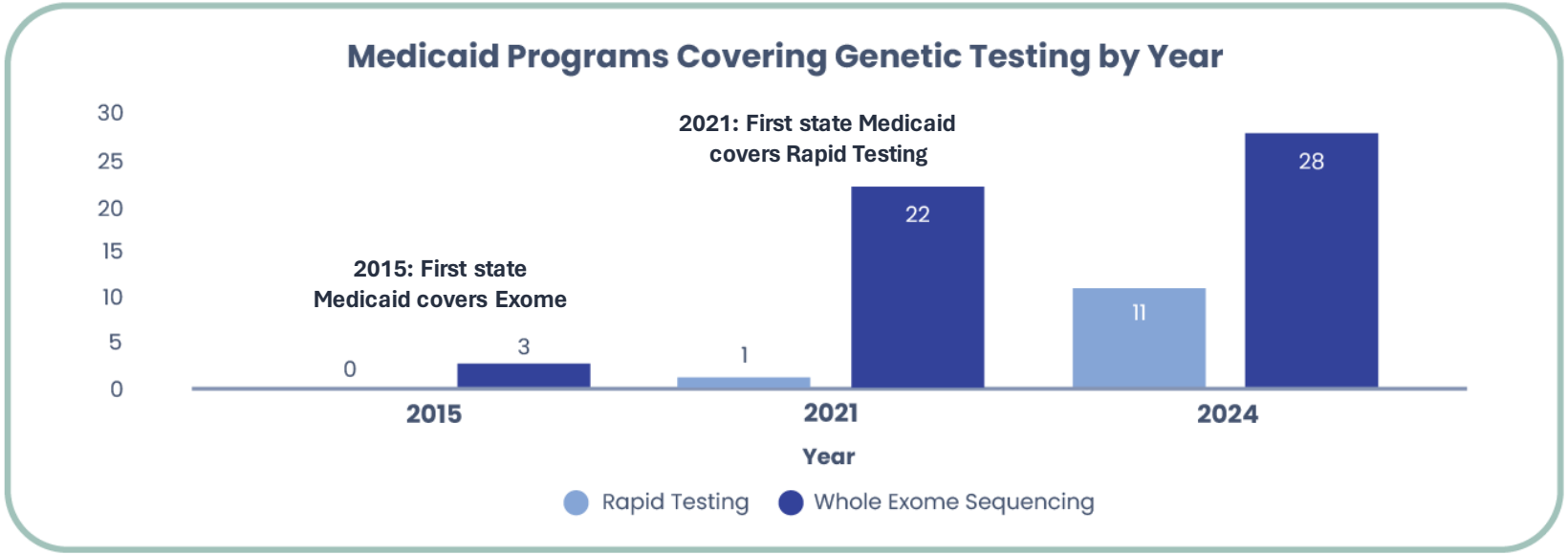
Products:
- Primarily exome and growing genome

Primary Clinical Indications:
- Epilepsy
- Intellectual disability
- Developmental delay

**Company estimates supported by Definitive HC diagnosis data.*

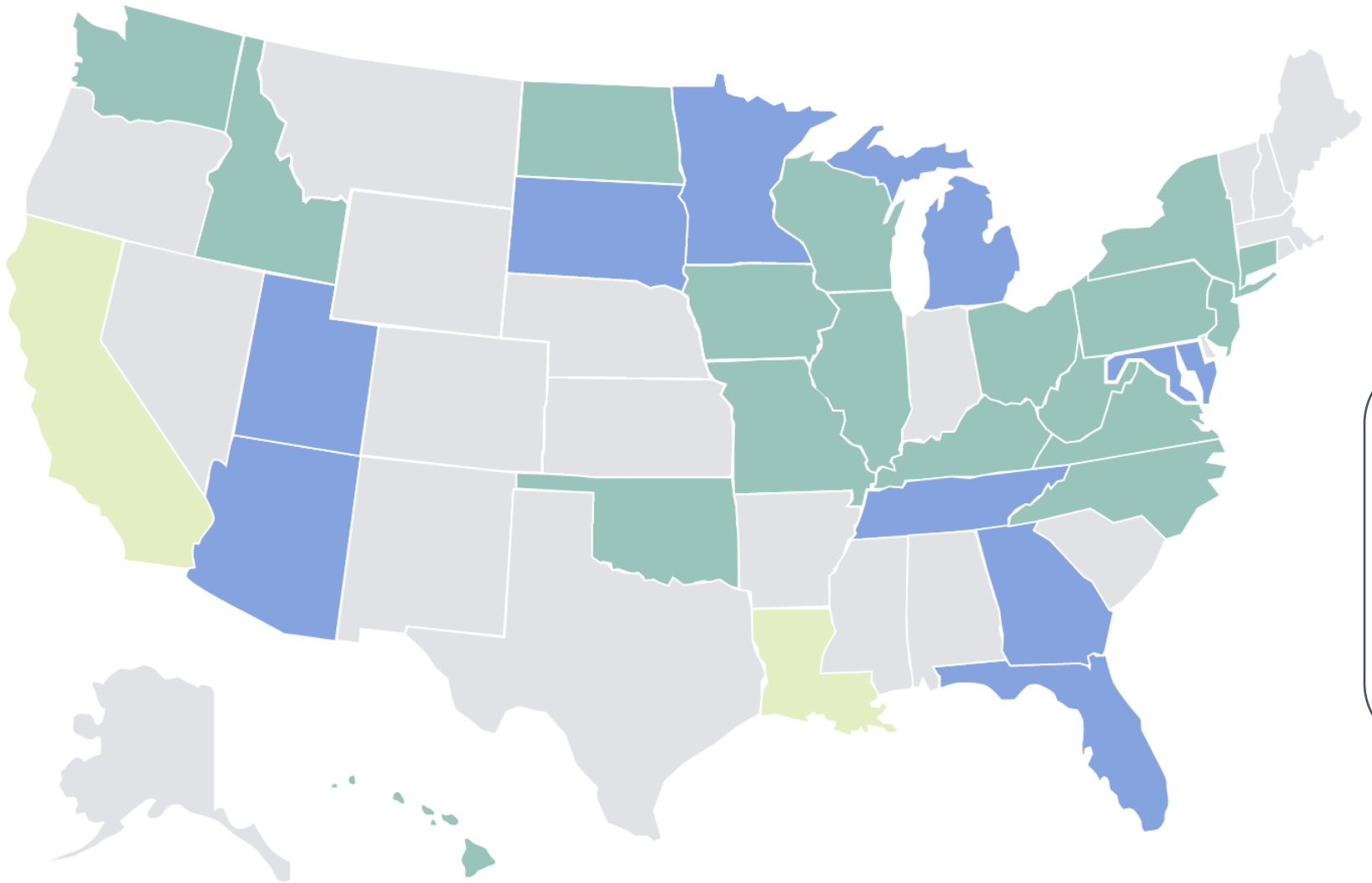
Payor coverage for exome and genome sequencing is expanding

- GeneDx is **contracted with over 80% of covered lives**, including all large national commercial payers
- **Medicaid and commercial insurance coverage continues to grow** for exome and genome
  - **28 states** cover exome sequencing
  - **11 states** cover rapid genome sequencing
  - **Biomarker bills** are driving momentum in Medicaid coverage in key states like Texas and California



Data through April 2024.

Medicaid programs across the country are expanding access



Current Medicaid Coverage Landscape

- Whole Exome Sequencing
- Rapid Genetic Testing
- Both
- No Coverage

Data through April 2024.

Medical practice guidelines recommend exome and genome sequencing for patients

ACMG Practice Guideline[1]:

"Strong recommendation based on the available evidence to support the use of ES/GS as either a first- (or second-) line test in patients …. ES/ GS demonstrates clinical utility for the patients and their families with limited evidence for negative outcomes and the ever-increasing emerging evidence of therapeutic benefit."

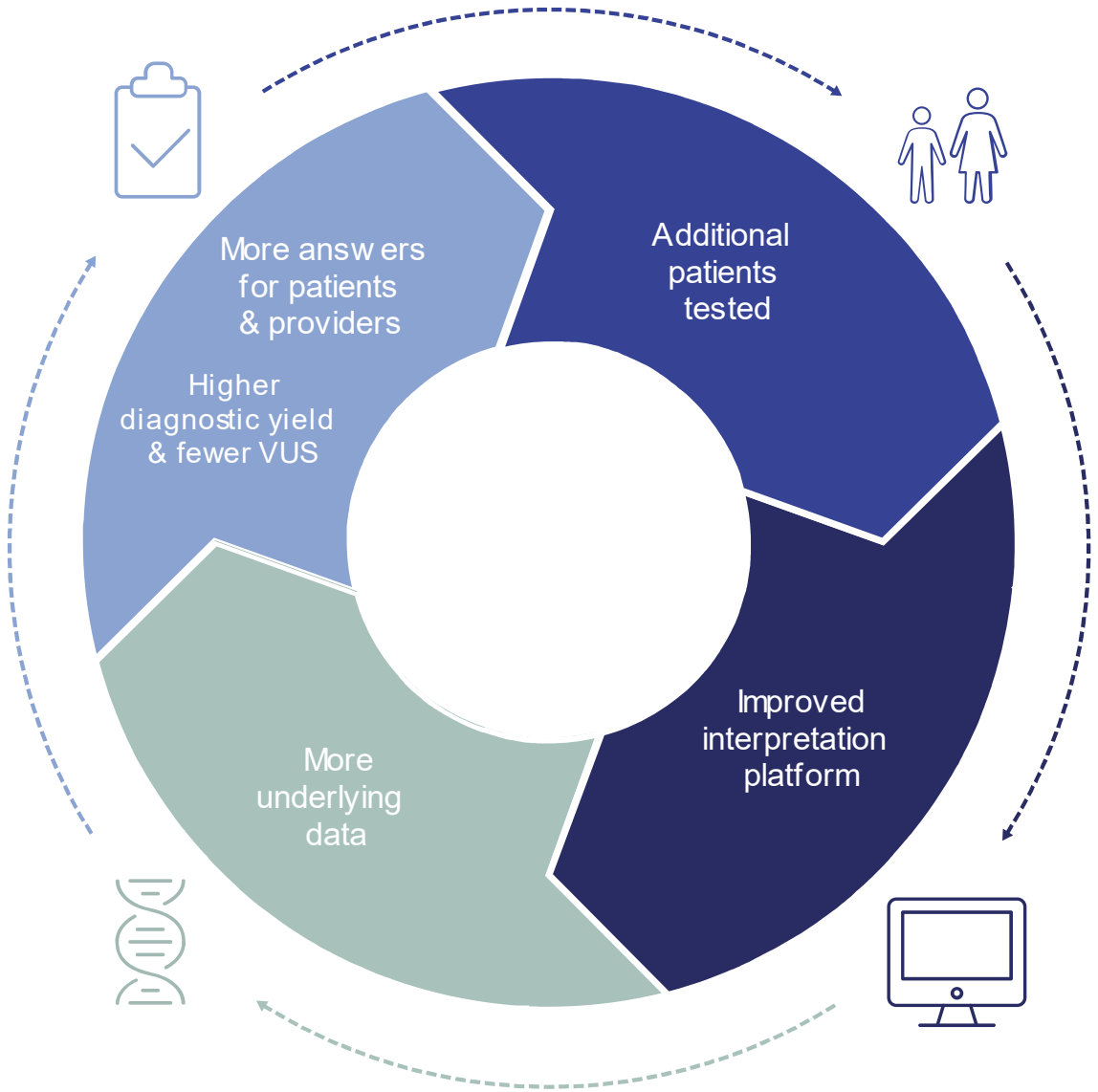
NSGC Guideline[2]:

"Recommending Exome Sequencing as a First-Tier Genetic Test for Unexplained Epilepsies"

American Epilepsy Society:

"Exome or genome sequencing are favored for most scenarios, as they are more likely to provide a diagnosis."

1 Manickam K, McClain MR, Demmer LA, et al. Exome and genome sequencing for pediatric patients with congenital anomalies or intellectual disability: an evidence-based clinical guideline of the American College of Medical Genetics and Genomics (ACMG). Genet Med. 2021 Nov;23(11):2029-2037. doi: 10.1038/s41436-021-01242-6. Epub 2021 Jul 1.
2 Smith L, Malinowski J, Ceulemans S, et al. Genetic testing and counseling for the unexplained epilepsies: An evidence-based practice guideline of the National Society of Genetic Counselors. J Genet Couns. 2022 Oct 24. doi.org/10.1002/jgc4.1646



Pay-it-forward data strategy

For every patient that we test, our underlying interpretation platform gets smarter, and we can offer more answers to more patients.

The impact scales as we capture more and more of the market.

Data is at the center of our business

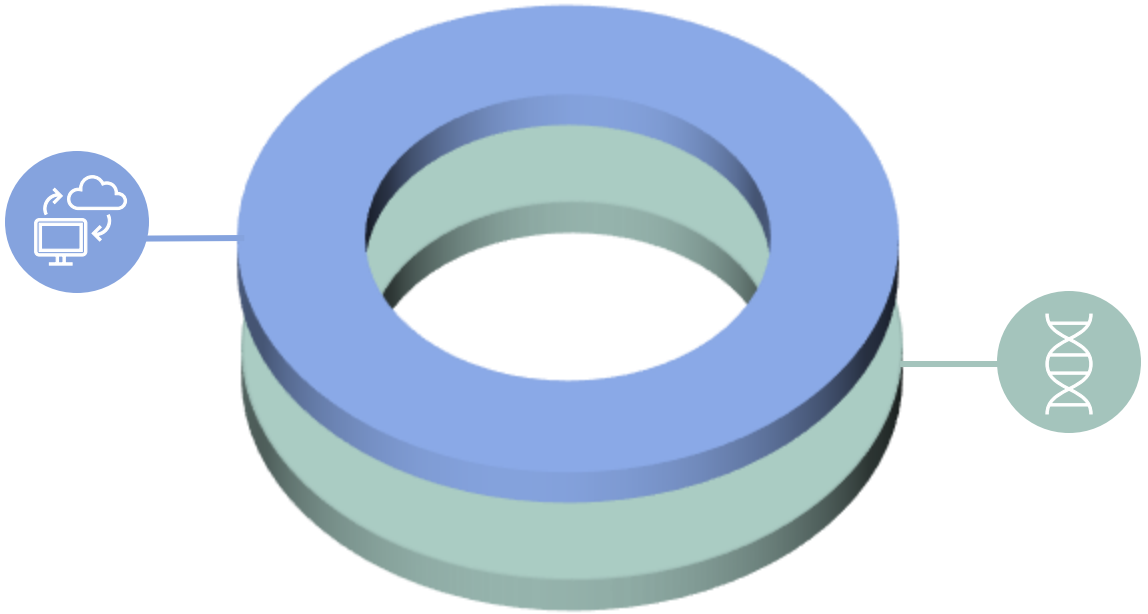
Our huge dataset and intelligent interpretation platform set us apart and fuel innovation

Advanced interpretation platform

Simplifies complex genomic data

Reduces variants of unknown significance

Increases diagnostic yield



>500K sequenced exomes

Significant clinical and genomic data

Fuels improved testing accuracy

Advances science and powering future discoveries

Common diseases are in fact a constellation of genetic diagnoses

One example is epilepsy. At least 768 different genes are related to seizures.

Only 43% are tested on many commercial epilepsy panels

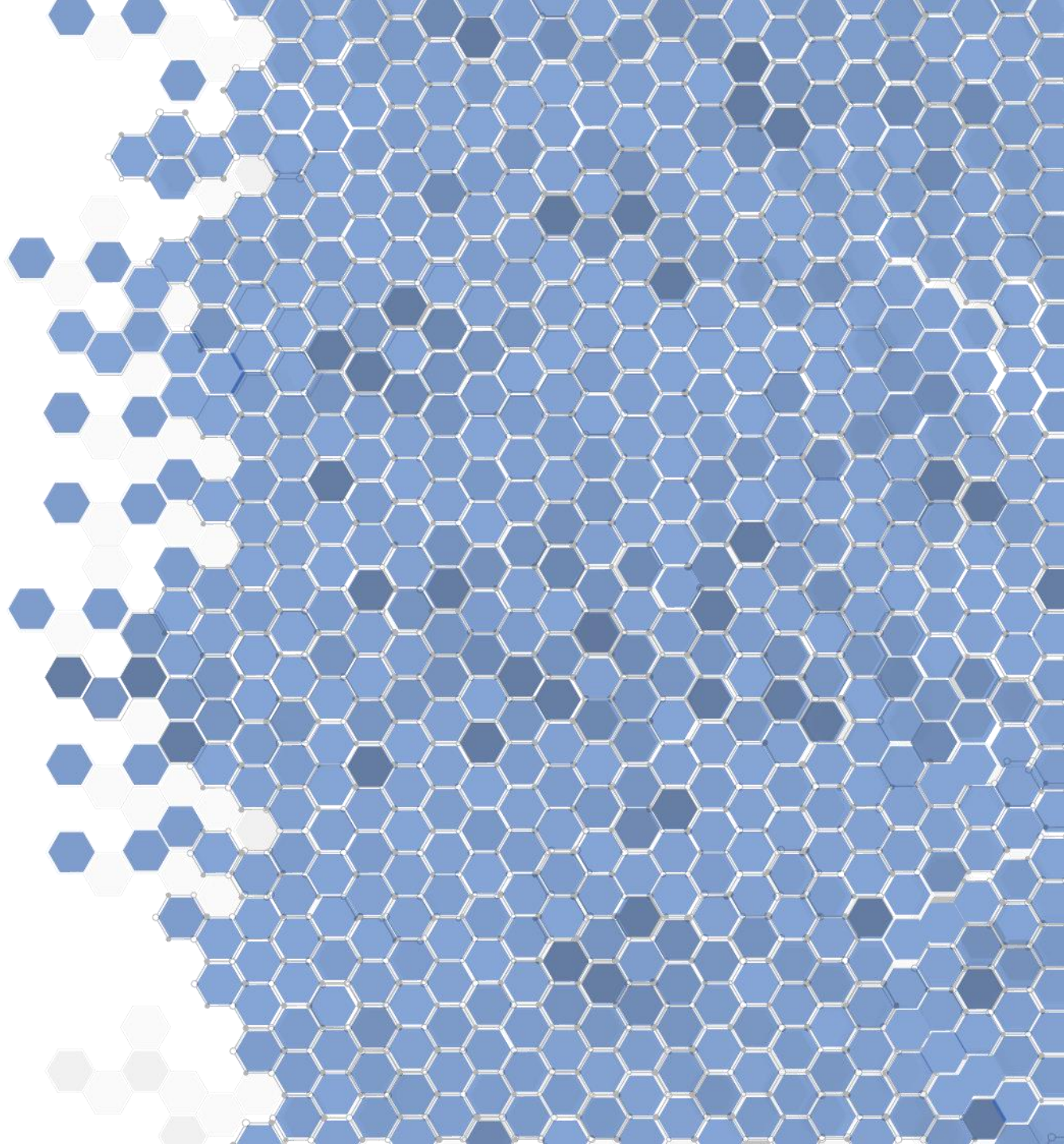
Butler L. *et al.* Exome-based testing for patients with seizures: Advantages over panel-based testing. Poster presented at American Epilepsy Society Annual Meeting; December 2, 2023; Orlando, FL.

Common diseases are in fact a constellation of genetic diagnoses

One example is epilepsy. At least 768 different genes are related to seizures.

Only 43% are tested on many commercial epilepsy panels

Exome sequencing checks all 768 genes



Butler L. *et al.* Exome-based testing for patients with seizures: Advantages over panel-based testing. Poster presented at American Epilepsy Society Annual Meeting; December 2, 2023; Orlando, FL.

Today, we shorten the diagnostic journey.
Tomorrow, we hope to prevent it.

GeneDx

Building the future: NICU

Shorter hospital stays. Less uncertainty. Better care.

In phase one of the SeqFirst study, 125 infants were offered rapid WGS:

63% of infants had abnormal rapid WGS results, and **88%** of these cases resulted in a change in management

1 in 4 infants with abnormal results were not previously suspected to have a genetic syndrome

Families of enrolled infants reported an **overall positive experience**, regardless of rapid WGS test outcome

Building the future: Newborn screening

Fast diagnosis. Clear next steps. Reduced healthcare costs.

- Screened **5,000** healthy infants, toward goal of >100,000
- **4.3%** positive rate
- Average age of diagnosis for these conditions is **7-11** years old

GeneDx GUARDIAN STUDY

Building the future: Partnerships

Enriched data. Empowered drug discovery. Improved outcomes.

GeneDx offers solutions across the pharma drug development pipeline

Find

Connect

Understand

Building the future: Interpretation as a service

Scientific rigor. Medical value. Establishing genomics as the standard of care for all.