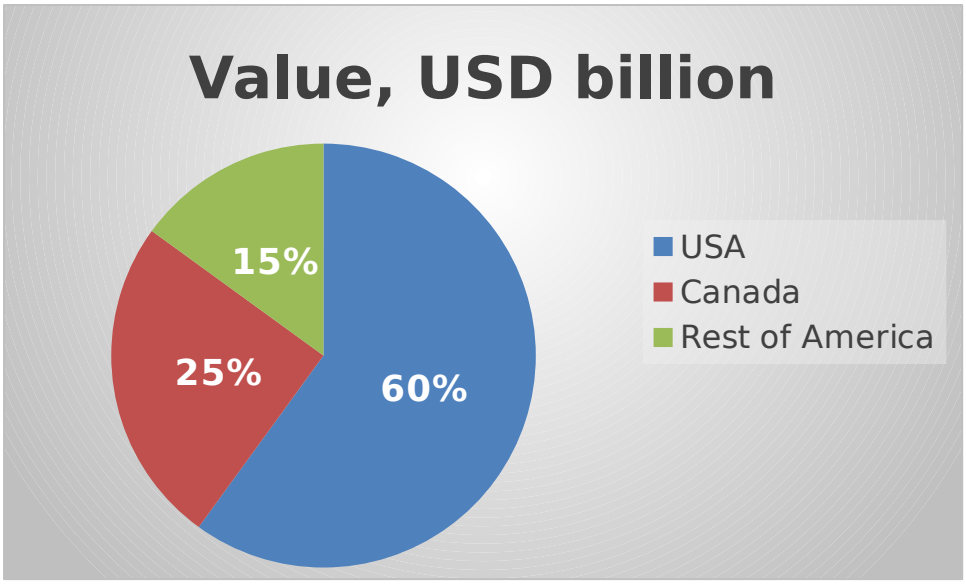
What is the market size, trends, and major players for North America Genetic Testing Market ?

- The genetic testing is a method for performing examinations for the diagnosis and treatment of genetic problems. For the purpose of diagnosing genetic illnesses, many tests are conducted. These tests include diagnostic testing, prenatal and neonatal testing, predictive testing, pharmacogenomics, carrier testing, and nutrigenomics. Numerous disorders, including Duchenne muscular dystrophy, cancer, Huntington's disease, Alzheimer's, and Thalassemia cystic fibrosis, are being treated utilising genetic testing.
- The North America genetic testing market is expanding as a result of the rising need for customised treatment and the spike in demand for genetic testing in the field of cancer. Rapid use of genetic testing by hospitals and clinics is accelerating the predicted growth of the north America genetic testing industry.
- The genetic testing market in North America is estimated to be approximately USD 4.38 billion in 2021.
- USA contributes 60% of the market followed by Canada and the Rest of America
- Major driver of the genetic testing market in North America is abundant funds and many companies researching molecular biology.
- Based on test type, the diagnostic testing segment had the greatest market share in the North American genetic testing market in 2021. This is explained by the increased frequency of chronic illnesses and the growing elderly population. Additionally, the market for genetic testing is expanding due to the spike in demand for diagnostic tests.
- In terms of illness type, the worldwide market for genetic testing in 2021 will be dominated by the cancer sector. According to the National Cancer Institute, there will likely be 1,806,590 new instances of cancer in the United States in 2021, and 606,520 individuals will pass away from the condition. This indicates that the incidence of cancer is rapidly increasing worldwide.In terms of geography, North America dominates the market for genetic testing. The presence of the leading industry players is credited with driving the growth of the genetic testing market in the North American area.



Market Drivers

- Due to an increase in cancer cases, genetic abnormalities, and understanding and acceptance of tailored care. For instance, pharmacogenomics, often known as drug-gene testing, has made extensive use of genetic testing. Additionally, during the projected period, improvements in genetic testing methods are anticipated to accelerate market expansion. However, it is projected that the expansion of the genetic testing market would be constrained during the forecast period.

Market Barriers:

- The market growth is constrained by the high cost of the genetic testing .

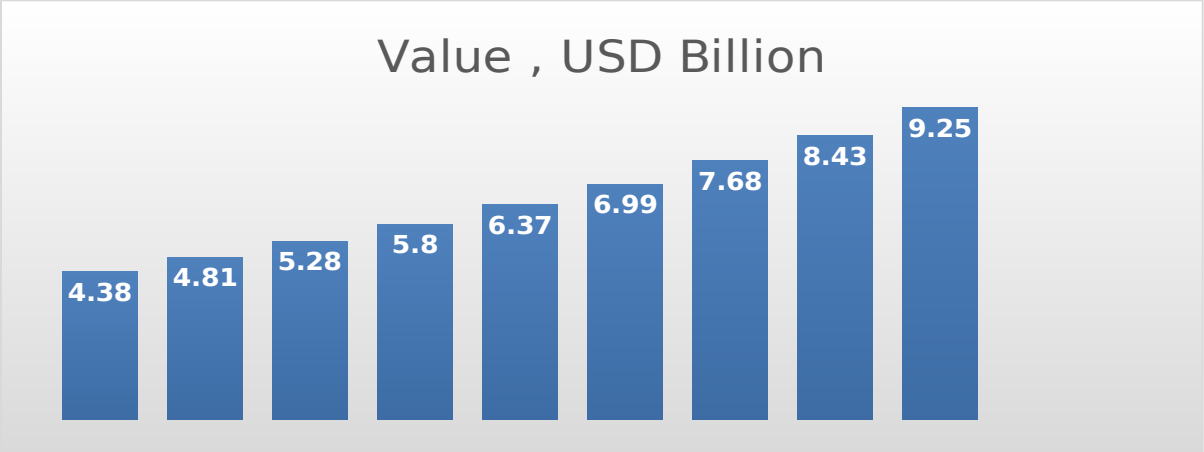
- By issues with standardization of diagnoses based on genetic testing and strict regulatory requirements for product approvals.

Market Trends:

Gene mutations linked to illnesses that typically manifest after birth and in later stages of life are found using predictive and presymptomatic testing. Even if they are free of any symptoms of the condition while testing, such tests can be helpful to people who have a family member who has a genetic disorder. Predictive testing can help in locating mutations that raise a person's likelihood of acquiring certain types of cancer or other diseases. As a result, more of these tests are anticipated to be performed as cancer incidence rates rise and as public awareness of the disease grows, which is predicted to fuel market growth

Forecast:

- The North American genetic testing market is growing at the rate of 9.25% from 2022 to 2029.



IMPACT OF COVID-19 on India Oncology NGS Market

- The COVID-19 pandemic had a negligible effect on the expansion of the global as well as north America market for genetic testing. Lockdown regulations and the "stay at home" culture had a detrimental impact on

the genetic testing sector.However, the coronavirus outbreak also contributed to growth in the genetic testing industry. The fear of contracting an illness during the pandemic led to a significant increase in the demand for genetic testing.

- The COVID-19 epidemic has also had a negative impact on the market. For instance, as a precaution to stop the spread of COVID-19 after the WHO labelled it a pandemic, nations all over the world implemented lockdowns to follow social segregation. This caused disruption, constrictions, difficulties, and adjustments in every industry's sector. The market for genetic testing is also negatively impacted by the epidemic. This is due to the fact that doctors are often unavailable for counselling, genetic counsellors are sometimes unable to meet with patients in person, and laboratories are unable to do the necessary tests. Genetic counsellors are not excluded from practising during lockdowns since authorities like the Centers for Medicaid Services (CMS) currently do not recognise them as healthcare professionals. Additionally, clinics less in-person genetic counselling to stop the spread However, major players in genetic testing like GeneDx offered a service where they supplied genetic tests that clinicians had requested. Similar to clinics, telemedicine is increasingly being used by individuals, healthcare practitioners, and clinics to deliver genetic counselling. Additionally, due to its importance, prenatal testing continues to be the sort of genetic testing that is least impacted overall. For example, a large number of prenatal genetic counsellors reported offering in-person services during the epidemic. Thus, pandemic has a general adverse effect on the market for genetic testing.

PEST Analysis

Political: Government financing for research and development will increase, which will help the market in the foreseeable future. Government funding for genetic testing research is increasing. Expanding research efforts along with the introduction of new products.

Economical: Increased outpatient procedures, as well as economic growth aided by expanded insurance coverage. The highly contagious coronavirus is having an

economic impact on a variety of industries, including the genomic market Major driver of the genetic testing market in North America is abundant funds and many companies expanding research efforts towards genetics.

Social: increase in cancer cases, genetic abnormalities, and understanding and acceptance of tailored care. For instance, pharmacogenomics, often known as drug-gene testing among the north Americans has made extensive use of genetic testing.

Technological: The healthcare industry's cutting-edge technology, robust infrastructure, and advantageous reimbursement rules are the main market drivers. Improvements in genetic testing methods are anticipated to accelerate market expansion. However, issues with genetic testing-based diagnostics' uniformity

Major Players:

- Illumina Inc
- F. Hoffmann-La Roche Ltd
- Abbott Laboratories
- Bio-Rad
- Danaher
- Eurofins Scientific

Conclusion:

- The market is anticipated to increase as a result of significant reasons like the focus on early illness diagnosis and prevention, rising demand for customised treatment, expanding use of genetic testing in cancer, and significant demand for direct-to-customer genetic tests. Several genetic abnormalities are quickly identified in the womb using both invasive and non-invasive methods. These technological advancements have made it possible for doctors to run tests more accurately and to examine

numerous genes at once. This industry is expanding as a result of consumer demand for reliable genetic diagnostics.

- The National Genome Research Institute and the National Institutes of Health together fund the Genome Research Institute. As part of this partnership, Invitae will offer genetic testing to all 25,000 patients.Genessense, an evidence-based genetic screening test, can be obtained online on the Genessense website or through e-commerce platforms in the future, according to a September 2021 announcement from MedGenome Labs.AvaGen, the Genetic Eye Test, will be available in the United States in July 2021 with the goal of assisting patients in assessing their risk of eye conditions and other ocular chronic diseases.