

Neurology Industry Outlook

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According to WHO 2013, globally the disorder is prevalent in about 7 persons per 1,000 of the adult population ages 15–35 years. With reference to recent WHO report it is estimated that in 2022, the US will have the maximum number of diagnosed predominant cases of schizophrenia with 1,777,333 cases, followed by Japan with 454,961 diagnosed predominant cases, and Italy with 154,331 diagnosed predominant cases. In America currently, around 5.4 million are diagnosed with Alzheimer’s disease. The American Alzheimer’s Association projects that the number will triple to 16 million by the year 2050.

As per WHO, 26 African countries in sub-Saharan Africa are known as Meningitis belt and transmit maximum epidemic risk. Globally, the disease has triggered assessed 700,000 cases and 70,000 deaths over the past 10 years. According to the Alzheimer's Association with the costs of dementia and stroke alone projected to total more than \$600 billion by 2030. Every year \$1.8 billion is funded for cancer research. According to a global study conducted by the World Health Organization, 8 out of 10 disorders in the 3 highest disability classes are neurologic problems.

What seems astonishing is that engineering techniques like brain engineering, or Neural engineering can be used to understand, repair, replace ,enhance ,or otherwise exploit the properties of neural systems.

Neuro-Oncology, Neurological Rehabilitation, Neuroimaging and Radiology, Advances in Neuroradiology and Neuroimaging, Neuropsychiatry and Neuropsychology, Cognition and Behavior neurology and many more... Current research in the field of neuroengineering include: Neural imaging and neural networking, biomolecular therapies in neural regeneration, Neurorobotics, Biological neural networking, Neuro hydrodynamics and clinical treatment, Engineering strategies for repair, Computational clinical neuroscience, biological neuron modelling, behavior of networks and advanced therapies. People will also be enlightened on advancements in brain computer interface and deep brain stimulation studies

- Neural engineering
- Current research in neuroimaging
- Biomarkers in Neuroimaging
- Neural networking
- Neurobotics
- Biomolecular therapies in Neural regeneration

MARKET ANALYSIS:

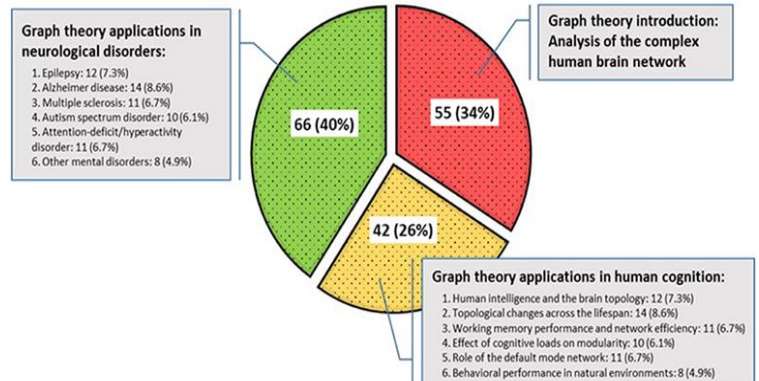
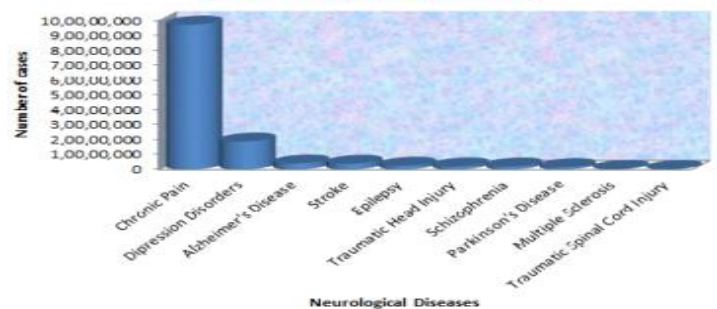
The market analysis of neurology represents the largest and untouched market in the medical sector. This estimated market analysis is based on the probability of approval and sales of products in late stage development, demographic trends, and marketing of the product. Emerging markets once again helps to boost revenues. CNS therapeutics and diagnostics comprise approximately 15% of total pharmaceutical sales which is nearly \$30 billion across the world.

Estimated annual economic costs of anxiety disorders, depression and schizophrenia are \$47 billion, \$44 billion, and \$33 billion per year respectively. The goal of this Neurological meet is to understand the market Value & Growth of Neurology and Neuroscience, Neurological Drug, Current economics cost of clinical research and development.

According to the latest market analysis, it is forecast that Global Neurology Endoscopy Devices Market is projected to show growth of at 7.20% CAGR during the period 2017-2021.

Neurological disorders can be classified according to the primary location affected. The primary type of dysfunction associated, the broadest division is between central nervous system disorders and peripheral nervous systems disorders. There are number of patients that are affected by different neurological disorders.

Number of patient affected by different neurological disorders



Graph theory applications in neurological disorders:

1. Epilepsy: 12 (7.3%)
2. Alzheimer disease: 14 (8.6%)
3. Multiple sclerosis: 11 (6.7%)
4. Autism spectrum disorder: 10 (6.1%)
5. Attention-deficit/hyperactivity disorder: 11 (6.7%)
6. Other mental disorders: 8 (4.9%)

Graph theory introduction: Analysis of the complex human brain network

Graph theory applications in human cognition:

1. Human intelligence and the brain topology: 12 (7.3%)
2. Topological changes across the lifespan: 14 (8.6%)
3. Working memory performance and network efficiency: 11 (6.7%)
4. Effect of cognitive loads on modularity: 10 (6.1%)
5. Role of the default mode network: 11 (6.7%)
6. Behavioral performance in natural environments: 8 (4.9%)