Multiple Sclerosis

PHLT 8270: Health Informatics and Surveillance

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Through research and health program policies and education, community well-being can be improved. As opposed to the medical field, public health focuses more on protecting the entire population than on treating individuals. When it comes to this type of situation, it could be a rural neighborhood or even the whole country. Instead of treating existing medical conditions, public health professionals advocate for healthier lifestyles, develop community outreach programs, and offer policy advice to prevent disease in the first place. Furthermore, they advocate for greater access to health care and more equitable distribution of health care resources. When it comes to health, a public health issue affects a large portion of a specific group. As part of their work to monitor and address public health issues and other government agencies compile extensive data on the leading causes of death, injury, illness, and risk factors for those conditions. Data scientists and statisticians can create disease and mortality raw statistics based on this information.

Brain and spinal cord disease called Multiple Sclerosis (MS) has the potential to cause significant disability on the central nervous system and may cause permanent nerve damage. Disruption of the flow of information between body and brainoccurs when the protective sheath covers nerve fibers(Sastre-Garriga et al., 2020). There is a wide range of symptoms and signs associated with Multiple Sclerosis (MS). Those who suffer from the most severe forms of MS may be unable to walk at all, while others may go for long periods without experiencing any new symptoms.A team of medical experts and public health professionals works together to develop preventative measures and educational materials that can be distributed to the intended audience whenever this public health issue is identified. Public health is being reshaped at both the national and international levels as a result of globalization, which includes international travel, trade, and commerce as core elements.

The relapsing-remittingtype is the most common type of MS. Sometimes they get worse before getting better, and sometimes they go through flare-ups or relapses. MS symptoms can be temporarily exacerbated by slight elevations in core body temperature, but these are not considered true relapses of the disease(Dobson & Giovannoni, 2019).Fifty percent or more of people with MS experience progressive symptoms with or without remission for the first 10 to 20 years after diagnosis.There is a wide range of disease progression rates in people with secondary-progressive multiple sclerosis (MPS).Health systems and communities benefit from better evidence-based interventions, which reduces the amount of money spent on acute and crisis care while also promoting better overall population health.

Because of the lack of a cure for MS, current treatment focuses on making the public aware of disability management and prevention of the disease (Eskandarich et al., 2018). During their treatment, MS patients see a variety of specialists. At appointments, patients play an important role in the exchange of information amongst the healthcare professionals involved. A lack of information about a patient's treatment history is a problem for many providers. There is a dearth of information on how patients are treated. Health care organizations are looking for more accurate information to achieve their efficiency, effectiveness, and their survival in the market as a result of rapid growth, development, and complexity(Alroughani et al., 2019). Today, information management systems, in many developing countries, are far from ideal. All relevant and necessary patient information must be available before the information system (IS) can be implemented. The lack of national and standard data collection methods and technologies creates large gaps and limits the ability to exchange data with other information systems as well as internal interoperability.

Unwanted effects on patients' future and predetermined care are caused by inappropriate information dissemination, which also increases the system's costs. Systematized analysis guidance on the health system is hindered by a lack of integration between information systems(Hauser & Cree, 2020). The level of knowledge that can be gained from data that has not been structured is low. To ensure consistent upkeep, data elements gathered from various sources should be subjected to a set of rules and standards. Creating an integrated IS was made necessary due to the nature of chronic diseases requiring information from multiple providers at the same time, as well as the need of a patient to access their clinical information.

The information system necessitates massive investment and planning to promote services quantitatively and qualitatively, study the effectiveness of services in treatment performance, and persevere through the case process. Researchers believe that information systems can be used to compare the performance of different courses in health services management and the implementation of care processes. Effectiveness evaluation and appropriate decision-making are critical functions of this system. A long-term MS information system (MSIS) will also recognize and compare the disparity between national treatment and care.

To sum up, multiple sclerosis has an enigmatic etiology. Diagnosis of multiple sclerosis (MS) can be difficult. Early symptoms of MS can be vague and suggestive of a variety of different nervous system disorders. If a symptom appears and then disappears quickly, it may be overlooked. A definitive diagnosis of MS can be made with MRI, even though no single laboratory test can confirm or rule it out just yet. Experts in the field have developed and revised diagnostic criteria that incorporate MRI findings and spinal fluid analysis in order to assist providers in making an accurate and timely diagnosis.

**References**

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