

 SMAART Hub for Informatics enabled Nutrition Education (SHINE™) Research, Innovate, Policy, Practice, Entrepreneurship

Welcome Message

Welcome to the twelfth issue of the Nutrition Informatics newsletter SHINE (December 2022) of the Foundation of Healthcare Technologies Society. This newsletter aims to bring together the advancements in the field of Nutrition Informatics Research. Innovation. Policy, Practice, and Entrepreneurship. The newsletter will also provide recent updates about the various national and International nutrition informatics projects, and highlight some of the major nutritional challenges that can potentially be solved through various nutrition informatics interventions using data. information, and knowledge frameworks. We also highlight some of the student successes in the field of nutrition informatics research and practice. In addition, we bring together stories of the student's learning experience with the real nutrition informatics projects addressing real public health challenges. I encourage you to make a meaningful contribution to this newsletter by sharing data-driven, evidence-based ideas, innovations, and interventions that aim to address nutritional challenges impacting health among individuals, families, and communities across diverse Indian settings.



Dr. Ashish Joshi Ph.D. MBBS MPH



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SHINE (SMAART Hub for Informatics enabled Nutrition Education) Initiative aims to enhance self-management of chronic non-communicable diseases using three-months multilingual SMS messaging related to themes such as knowledge about the condition(s), diet, physical activity, healthy lifestyle, home-remedies, medication adherence and stress management.

How it is implemented: Beneficiaries screened during Swasthya Pahal are asked for their interest to enroll in the three-month SHINE initiative, which encourages selfchronic non-communicable of diseases. management Beneficiaries choose the frequency of SMS as per their choice and convenience on a daily/ weekly basis. Tailored messages are sent as per their health condition(s) screened during Swasthya Pahal. After the completion of each month, follow up calls are made to assess behaviour change of the enrollees. For the first two-months а structured questionnaire is completed and for the last month CSQ-8 assessment is completed.

IMPACT: From July to December 2022, 700+ Swasthya Pahal beneficiaries enrolled themselves in the SHINE initiative. As per patterns, 70% of Swasthya Pahal beneficiaries enlist themselves in the initiative.



NUTRITION RESEARCH IN GLOBAL SETTINGS



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NEW DIGITAL HEALTH TECHNOLOGIES FOR INSULIN INITIATION AND OPTIMIZATION FOR PEOPLE WITH TYPE 2 DIABETES

The financial and health burden of type 2 diabetes is significant on a global scale. Insulin is eventually required by many persons with type 2 diabetes in order to lower their risk of developing life-threatening complications. However, obstacles to starting and/or optimising insulin expose diabetics to persistent hyperglycemia. In this study, the potential for new and emerging technologies to potentially remove these impediments to the administration and/or improvement of insulin has been examined.

A targeted literature search was carried out using PubMed and significant scientific conferences. By carefully selecting more than 300 articles and conference abstracts, software tools and gadgets created to facilitate the initiation and/or optimization of insulin were found. The majority of software tools have been created for mobile platforms. According to published research, using these technologies is now associated with glycemic outcomes that are comparable to or better than standard care, as well as additional advantages including decreased time burden and increased understanding of diabetes among healthcare professionals. However, there is still a dearth of reliable evidence. Most modern tools for insulin therapy provide aid in monitoring insulin dose and timing.

Source : https://www.endocrinepractice.org/



LOW VITAMIN D LEVELS MAY INCREASE ODDS OF DEMENTIA



According to a study from The American Journal of Clinical Nutrition, published online on April 22, 2022, vitamin D insufficiency may increase the risk of dementia and stroke. More than 294,000 adults residing in the UK were examined for the study, the majority of whom were women over 60. Researchers searched for links between vitamin D levels and risks of dementia and stroke using blood testing on all participants and neuroimaging methods on around 34,000. A blood vitamin D level of at least 50 nanomoles per litre (nmol/L) was considered normal; a level of less than 25 nmol/L was considered deficient.

Source : https://www.health.harvard.edu



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DISEASE-SPECIFIC DATA PROCESSING : AN INTELLIGENT DIGITAL PLATFORM FOR DIABETES Based on model prediction and data analysis utilizing big data technology

A common trend in the advancement of medical information technology is artificial intelligence. Big data technology has become essential for medical and scientific research because of the complicated structure and vast amount of medical data produced by the current process of medical informationization. This technology helps doctors conduct scientific research and analysis and obtain high-value information.



By examining current data mining techniques and platform building expertise in the medical industry, using a large data platform building technology utilising the Hadoop system, model prediction, and data processing analysis methods based on the principles of statistics and machine learning, this study aims to discuss the architecture of a diabetes intelligent digital platform.

READ MORE

Source : https://www.frontiersin.org/

FEEDING THE WORLD INTO THE FUTURE – FOOD AND NUTRITION SECURITY: THE ROLE OF FOOD SCIENCE AND TECHNOLOGY

The world population will approach 9 billion people by the middle of the century, increasing demand for food, water, arable land, and environmental effects. Issues with food safety, nutritional deficiencies, postharvest losses, inconsistent regulations, and consumer attitudes are all significant obstacles that must be overcome in order to preserve food security and sustainability. Technological advances in food processing, nanotechnology, novel food formulations, and the application of genomic approaches—examples of which include alternative protein sources, insect flour, nutrigenomics, 3D food printing, biomimicry, food engineering, and technology fusion—are some potential remedies.





Source : https://www.tandfonline.com/



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