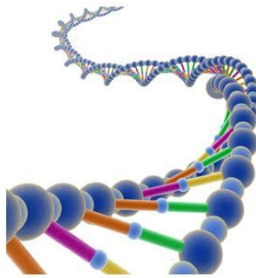

Personalised Medical Interventions Could Generate Significant Health Gains



According to Dr Victor Dzau, President of the U.S. Institute of Medicine and colleagues, new developments in personalised and precision medicine (PPM) could offer significant gains in healthy life expectancy for Americans but the incentives to develop them are weak. The personal view has been published in *The Lancet*.

PPM is tailored medical treatment based on a patient's individual characteristics and their susceptibility to a particular illness. PPM not only targets therapies at individuals who are ill but also has the ability to identify those at highest risk of developing a disease and who would benefit from preventive measures.

Dr Dzau and team used a health stimulation model developed by Professor Dana Goldman, Director of the University of Southern California Schaeffer Center for Health Policy and Economics, Los Angeles, U.S. The model projects the future impact of PPM interventions that improve screening and risk prediction technologies. It also predicts the monetary value of health generated by PPM interventions in reducing the incidence of six diseases. These include cancer, diabetes, heart disease, high blood pressure, lung disease and stroke in the U.S. population by 10 and 50 percent between 2012 and 2060.

The findings indicate that a PPM intervention that reduces the incidence of these diseases by 10 percent would generate \$96 billion from diabetes and \$70 billion from cancer in the form of longer, healthier lives over 50 years. Similarly, a PPM innovation that reduces heart disease incidence by 50% would generate a \$607 billion in improved health over 50 years.

"Preventive, personalised, and precision medicine interventions targeted at reducing heart disease would have the greatest societal benefit, because heart disease is very common and has a relatively large effect on life expectancy," explains Dr Dzau. "Other diseases such as stroke or lung disease are much less prevalent and offer smaller opportunities for creating additional years of healthy life from incidence reduction."

Dr Dzau points out that while there are significant benefits to be derived from PPM innovations, there is very little incentive to develop them since the reimbursement environment in the U.S. healthcare system faces near-term budget pressures. That is why there is greater emphasis on developing treatments that generate returns in the short term. More focus is placed on immediate benefits and short payback periods. However, the fact is that benefits from PPM innovations accumulate over the long run as more and more individuals enjoy improved health and have longer lives. The authors conclude that developing a model that generates positive returns for private payers could benefit everyone.

Source: The Lancet

Image Credit: DNAdirect.com

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