

The future of healthcare

Personalised, participative, precise, and preventive, are the four pillars of modern healthcare.



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THE NEW FOCUS of healthcare is less on responding to illnesses and more on anticipating them. The roadmap of the future, rooted in predictive health models and early preventative care, will see the individuals working more closely than ever with doctors on holistic wellness and proactive disease prevention.

The Economist Intelligence Unit recently surveyed 480 high net worth individuals across Asia and Middle East to study how current healthcare habits might lead to breakthroughs for society as a whole. The data towards the healthcare future increasingly emphasised it to be preventive, personalised, participative and precise. It also pointed to far less focus on treatment and more on tailoring lifestyle intervention to manage one's personal health risk and avoid diseases.

SHIFTING FROM CURATIVE TO PREVENTIVE CARE

In the face of increasing longevity and rise of chronic diseases in later life, shifting from curative to preventive care will become vital for healthcare systems. The UK's National Institute for Health and Care Research predicts that by 2035, 67% of those aged 65 will have at least two serious conditions or impairments, up to 54% since 2015.

Sir John Bell, Regius Professor of Medicine at Oxford University, concludes that as the burden of chronic disease is escalating, health systems must address underlying pathologies rather than focus primarily on managing late-stage diseases. Before you know it, the health system is overwhelmed by late-stage diseases that are difficult to manage.

The emphasis is the need to transition healthcare from broad, reactive approach to a targeted preventive care. The shift can enhance the individual's quality of life and alleviate financial stress on the health system.

At the Economists Impact event, "The Future of Health 2023, Europe" in October 2023, Bell proposed a prevention agenda that identifies high risk individuals and interventions around behavioural changes that delay the onset of a disease or make it obsolete: "Right now we treat people at high cost three months before they die." However, identifying and treating chronic diseases before they show symptoms, increases the efficiency of 'therapies', explains Bell. He proposes a targeted approach, concentrating resources on populations at risk rather than adopting a broad strategy.

Recent advancements over the last 10 years in large-scale epidemiology and

molecular tools like biomarkers and genome sequencing have paved the way for a more preventive approach to healthcare. The future of health that we envision in 2040 will be a world apart from what we have now. Based on emerging technologies, we can be reasonably certain that digital transformation, enabled by radically interoperable data, artificial intelligence, and open secure platforms, will drive much of the change. The goal is to revolutionise healthcare by combining genetic analysis with lifestyle data providing insights into human health on an unprecedented scale.

Work is being carried out to collect comprehensive data on genetics, health and lifestyle and understand the factors influencing health conditions. The initial focus is on understanding cancer, Alzheimer's, heart disease, arthritis, diabetes, and stroke.

PARADIGM SHIFT: PUTTING PREVENTIVE HEALTHCARE INTO ACTION

Preventive healthcare focuses on identifying and addressing health risks before they develop into serious illnesses. It involves adopting healthy habits, regular screenings, and an active lifestyle, empowering individuals to take control of their well-being and make informed decisions.

EMPOWERING SELF-AWARENESS

Engagement in preventive healthcare allows individuals to actively participate in their well-being. It empowers them with knowledge and tools to make informed health decisions, transforming them from passive recipients of care to proactive healthcare advocates.

Preventive care also plays a crucial role in promoting health equity by addressing disparities in accessing care and work towards a more inclusive healthcare system. The benefit of preventive healthcare is that it is a powerful tool that enables us to take charge of our well-being and invest in our future, reduce the burden of disease, and enhance quality of life. Embracing preventive healthcare requires a proactive mindset and commitment. Remember, your health is your most valuable asset, and prevention is the key to unlocking its full potential.

PRECISION HEALTHCARE

Today's innovations are driving change. Technologies like mobile apps, genetic testing, and advanced screening produce biometric data on an unprecedented scale. Big data analytics and AI leverage this information to provide powerful insights,

helping physicians and patients target health goals and measure progress. Precision medicine, immunology, and 3D printing enable personalised interventions for diseases. Wearables become essential for self-monitoring, making it a norm. The goal of big data is to enhance disease prevention through better personal health risk management. To fully harness big data's potential, we need to build ecosystems that integrate technologies like AI and data analytics, though gaps still exist.

PERSONALISED HEALTHCARE

New treatments are using today's technologies to drive solutions that are more personal and precise. Barriers to mainstreaming these technologies include ethical concerns, cost, access, and resources. The outdated 'one size fits all' approach is fading in healthcare. Advanced patient engagement platforms like patient portals enable tailored health plans. The future of healthcare is personalised, offering seamless experiences with wearables powered by big data, AI, and predictive analytics.

COST-EFFECTIVENESS OF PREVENTIVE CARE

Analysis of cost-effectiveness of preventive care can guide policymakers to allocate scarce resources.

However, often the focus is only on cost-effectiveness of childhood immunisation and with adults on the use of low-dose aspirin. This does not allow a lens across the various health prevention programmes to allow for a collective overview. Prevention can reduce the incidence of disease, but savings may be partially offset by healthcare costs associated with increased longevity.

Whether these additional competing risk costs outweigh the savings from avoiding targeted disease depends on how healthy people are during the added life years.

Few preventive services save money or reduce healthcare spending if the focus is solely on costs. It's important to differentiate between cost savings and the high value of preventive care, which also considers increased longevity and quality of life.

To improve quality of life of the elderly and reduce the cost of long-term care, needs new methods of preventive medicine, use of new technology, creation of new programmes and pathways and use of newer and sometimes expensive molecules.

These costs cannot be kept at bay by preventive medicine alone. The Social Security System itself must be continually reformed.

SUSTAINABLE, HEALTHY, LONG-TERM BENEFITS

The progress of medicine is remarkable. Drugs to prevent Alzheimer's and photo-immunotherapy in cancer are pointers that hint at a future where almost all incurable diseases will disappear, with forecasts placing this around 2050.

Conquering disease is a wish shared across the world, but we cannot celebrate yet. Technological advancements fuel new preventive medical services.

The challenge of ensuring sustainability of public finances while accommodating lengthening life spans will need reform of social security systems.

A successful preventive care programme depends on consumer engagement and understanding of the rationale behind specific recommendations, as well as continued commitment to following them.

Extending the time of wellness visit lengths to 60–90 minutes annually. This removes the barriers cited by physicians as hampering their ability to counsel on lifetime modification. This contrasts with the medical visit lengths of 15.7 minutes in typical primary care physician (PCP) office.

Spending more time with patients and providing counselling on behaviours have been linked to higher patient trust. This trust improves patient-physician communication, satisfaction with healthcare, compliance with medical protocols, and continuity of care. Strengthening patient-physician relationship may be an important strategy to enhance patient engagement and motivation to adopt healthy lifestyle behaviours. Managing lifestyle health risks remains especially important to patients in midlife as they delay the onset of disease and disability and to facilitate the management of existing chronic conditions.

Medical service utilisation shows reduced ER use in early years and less urgent care in later years, reflecting better access to PCPs and reduced need for external care. Inpatient admissions and readmissions remain relatively low.

Healthcare expenditure trends indicated initially increased costs due to increased prescription drugs and screening, but over the years the expenditures level out, an indication of higher quality of care for dollar SPEND.

The results of many of the research programmes show that a model of personalised preventive care focused on wellness, prevention and augmenting the physician-patient relationship, can improve health management and reduce healthcare use and expenditure and promote higher quality care. **MC**