A new path towards the digitalization of the National Health System in Mexico

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Mexico's current digital transformation begins with the development of optimal solutions required by the population and its diseases. A more notable starting point can be identified after facing the aftermath of the COVID-19 pandemic, which exposed urgent issues that needed immediate attention through a strict integration between the reform of the Mexican Health System and Information and Communication Technologies (ICT). The new National Health System is a framework based on social and preventive medicine, inspired by the Bismarck model. Defined as a political strategy focused on reducing segmentation, fragmentation, and heterogeneity in healthcare services, having as its pillars: universality, equity, and quality of services.

Demographics and epidemiological transition aimed to adopt: Public Health Informatics, The Electronic Health Record (EHR), Picture Archiving and Communication Systems (PACS), and Clinical Decision Support Systems (CDSS).

Among the main objectives are enhancing service capacity through improved infrastructure, equipment, and trained staff. Healthcare workers will receive ongoing training and education on modern technology while ensuring ethical handling and protection of personal data.

Using a shared database also solves a major issue of the previous National Health System: the heterogeneity of care across different units and the inaccessibility of patients' clinical records. This disparity often resulted in prolonged medical appointment intervals, limited access to timely check-ups, misdiagnoses, and inappropriate treatments.

Document digitalization is currently in its early stages and is expected to grow alongside the establishment of the new reform of the National Health System. Plans include coordinating inter-institutional actions to strengthen the technological framework and create a database to serve the Mexican population. This process is regulated by the General Archives Law, which establishes guidelines for the management, preservation, and possession of records, regardless of the institution responsible for their use and safekeeping.

Some inequities and challenges still lack clear solutions regarding how they will be addressed, what regulations will govern them, and which legal and ethical frameworks will manage them. A clear example is Artificial Intelligence (AI), which is not intended to replace humans but to serve as an assistant in reducing errors, advancing research, and supporting disease prevention and follow-up.

Mexico is approaching the so-called 'Fourth Industrial Revolution'; however, there are still obstacles preventing full adaptation to these new technologies. One significant challenge is that the Mexican economy does not allocate a fixed percentage of the GDP for this purpose. Nonetheless, efforts are underway to develop an economic growth model that evaluates alternative trajectories for the adoption of AI in capital production.

Undoubtedly, the strong integration of sectors within the nation will lead to remarkable outcomes for its development. The use of modern technology applies not only to the medical field; it involves a multidisciplinary adaptation where knowledge is accessible to all individuals for its application.

Mexico is facing a new horizon in healthcare, with many models being changed and adapted to focus on individualization and patient approach. Many of these changes will not be reviewed in the short term, nor are they eligible to be considered as a single indicator. Continuous audits are required, especially using data and technology, which will be managed by a server, yet it is still unclear whether it will be based in Mexico or abroad.