

Systematic Review

The positive impact of electronic healthcare integration on quality and safety: a systematic review

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ABSTRACT

In the modern world, the vast and ever-growing volume of medical knowledge has become so large that clinicians may not be able to process it effectively, contributing to medical errors and suboptimal care worldwide. At this time, the most effective way to improve global health is to focus on the implementation of e-health globally. The rapid evolution of e-health technologies presents a transformative opportunity to enhance healthcare delivery. This literature review aims to synthesize evidence on the positive impact of integrating e-health solutions on the quality and safety of patient care. The goal of our research is to examine the benefits and challenges of e-healthcare and make global recommendations for both Georgia and the healthcare system in general. The research methodology is a literature review with narrative synthesis; A comprehensive narrative review of scholarly articles published in English over the last 10 years (2015-2025) was conducted. Key databases were systematically searched using terms such as "e-health," "digital health," "telemedicine," "health information technology," "quality of care," "patient safety," and "healthcare outcomes." Inclusion criteria focused on studies evaluating the direct or indirect positive effects of e-health interventions on quality and safety metrics. The review reveals consistent evidence demonstrating that e-health integration significantly contributes to improved healthcare quality and safety. Specific positive impacts include enhanced diagnostic accuracy through remote consultations, reduced medication errors via electronic prescribing systems, increased patient engagement and adherence through digital health platforms, and more efficient care coordination facilitated by shared electronic health records (EHRs). Furthermore, e-health has been shown to improve access to care, particularly in remote areas, and to bolster surveillance and response capabilities during public health crises, thereby indirectly safeguarding population health. This further proves that the best way to develop global healthcare is to integrate e-health and develop appropriate programs globally. The findings underscore the critical role of e-health in fostering a safer and higher-quality healthcare environment. Strategic integration of these technologies can lead to tangible improvements in patient outcomes, operational efficiency, and overall system resilience. Future research should focus on optimizing implementation strategies and addressing potential disparities to maximize the benefits of e-health across diverse healthcare settings.

Keywords: E-health, Digital health, Telemedicine, Health information technology, Quality of care, Patient safety, Healthcare outcomes

INTRODUCTION

Electronic health records (EHRs) are a key part of integrating digital health into the healthcare system. EHRs give doctors immediate access to a patient's full medical history, which leads to faster, more informed decisions and better coordination among different healthcare providers. This helps prevent fragmented care and duplicate tests, while also improving patient safety through alerts for things like allergies or incorrect dosages.

Digital health also includes other technologies like telemedicine, which provides remote care, making it easier for patients in distant or underserved areas to receive treatment. It also enables real-time monitoring for patients with chronic conditions, leading to timely adjustments in their care.

Mobile health (mHealth) applications are another component. These apps educate and empower patients, helping them manage their own care by improving medication compliance and communication with their doctors.

Main advantages and empirical support for digital health. Digital health also has numerous benefits, especially in favorable outcomes for the management of chronic illness. These include enhancement for self-management, efficiency for achieving individual health outcomes, reduced relapses, patient-provided communication enhancement, in addition to facilitation for accessibility for education as well as information.¹ Digital service also shares educational materials, reminders for health info, and customized info so patients are capable of expanding understanding as well as management for conditions. Research into digital health needs to be evidence-based to reach its full potential. A study on a digital mental health service, which included a "digital clinic," showed very promising results.

This approach proved to be viable, with a high completion rate-83.3% of participants finished the 8-week program, which is a notable achievement for online interventions. The study also demonstrated successful implementation, effectively training clinicians on using a mental health app and digital navigators to support patients.

Most importantly, the digital clinic showed significant symptom reduction for participants with depression and anxiety, along with improvements in their overall well-being and emotional regulation. These positive outcomes support the growing need for a general growth model for eHealthcare. However, creating a unified scientific community for this field is challenging due to its interdisciplinary nature, combining behavioral science, psychology, and medicine.

Creating a unified scientific community for e-health is challenging because it is a field that draws from many disciplines, including behavioral science, psychology, IT, and medicine. To bridge these "knowledge barriers," health systems should form multidisciplinary teams for development and implementation.²

METHODS

The research method was a literature review and narrative synthesis of pre-selected articles, examining the positive contribution and present difficulties of health in other countries. The review's inclusion criteria included articles recently published over the last 10 years, contemporaneously, with keywords, in peer-reviewed journals indexed by Scopus, PubMed, and Web of Science. The articles included were written in English. Exclusion criteria were articles older than 10 years or articles beyond peer-reviewed journals.

This literature review aims to synthesize evidence on the positive impact of integrating e-health solutions on the quality and safety of patient care. The goal of our research is to examine the benefits and challenges of e-healthcare and make global recommendations for both Georgia and the healthcare system in general. The research methodology is a literature review with narrative synthesis; A comprehensive narrative review of scholarly articles published in English over the last 10 years (2015-2025) was conducted. Key databases were systematically searched using terms such as "e-health," "digital health," "telemedicine," "health information technology," "quality of care," "patient safety," and "healthcare outcomes." Inclusion criteria focused on studies evaluating the direct or indirect positive effects of e-health interventions on quality and safety metrics.

Our methodology involved a systematic narrative literature review. We individually evaluated each article to avoid bias. The final short-listed thirty articles review was reached by mutual consent from the short-listed forty-five articles initially. These articles were short-listed on the basis of multi-faceted digital health technologies' quality, safety, accessibility of healthcare, as well as health outcomes by health literacy intervention. Article evaluation was based only on the basis on inclusion and exclusion criteria.

RESULTS

Research shows that the success of e-health technologies depends heavily on user acceptance and adoption. This means a top priority should be designing user-friendly interfaces, providing adequate training and support, and involving both patients and healthcare professionals in the design process to ensure the tools meet real-world needs.² Additionally, a review by Schaefer et al on digital health in cancer care highlights its use as a monitoring tool, especially for palliative patients. This is another example of the wide-ranging positive impact of these

technologies.⁴ The review was limited to 134 relevant literature reviews, where articles significantly rose since 2020 (77 reviews).³ Key findings are overwhelming, most reviews (128) were patient interventions, while significantly fewer referred to family caregivers and healthcare providers. Half the reviews forty-eight referred to the active cancer disease segment of the cancer continuum, where fifty-six reviews referred to favorable cancer result outcomes on cancer treatment. Nevertheless, this study identified many broad gaps in literature reviews, such as: No specific program for older adults during the digital health era for cancer patients.⁴ Therefore, the research strongly recommends filling such gaps by conducting more research on specific regions to innovate further while delivering cancer treatments remotely. Paolo et al evaluated the effectiveness of EHRs on quality indicators for health care. A systematic review and meta-analysis of 47 articles confirmed a significant positive correlation between the correct implementation and utilization of EHR systems and some elements of healthcare quality: Less time for documentation: Doctor time for documentation was linked with EHRs' implementation for decreasing time for documentation (mean reduction=-22.4%). Increased compliance with guidelines: EHRs were significantly associated with increased compliance with clinical guidelines (risk ratio=1.33). Fewer ADEs: EHRs also had a lower rate of ADEs (average risk ratio=0.66). A systematic review and meta-analysis by Widmer et al was meant to establish the evidence for the potential value of DHIs on CVD outcomes as well as risk factors.⁵ The study compared fifty-one articles (cohort studies as well as randomized controlled trials). It verified that: DHIs significantly lowered incidences of CVD (e.g., myocardial infarction, stroke, revascularization, hospitalization, all-cause mortality). Relative risk was 0.61 (i.e., 39% event reduction). Positive impacts on risk factors. A scoping review that describes factors characteristic of DHTs implementation during pandemic work in LMICs' hospitals since the beginning of the COVID-19 pandemic.⁶ The study has come to the finding that despite the widespread digital technologies like the implementation of telemedicine having emerged during the pandemic period in LMICs' hospitals, implementation success is strongly affected by factors related to infection control and experience in educating. Conversely, digital awareness for patients, digital competences, and trust are key barriers.⁶ A critical review on incorporation of digital technologies into mental healthcare on opportunity-risk basis in prevention, detection/review centers on prevention, detection/review centers on cure, and management centers on cure. The article observes that further provision for eHealth provision is positively redefining mental healthcare all over the world with humongous opportunities as well as risks. It also reviews recent innovation and evidence-based treatments, where it chooses to monitor technologies developed further and are constructed in responsible capacities capable enough for mental health needs.⁷ Its overall finding is thus a

prospective vision on prospective digital mental health technologies to world-positive practice style ethically.⁷

DISCUSSION

Systematic reviews the digital health technologies' contribution toward international health security, specifically considering emergency planning and disaster management. The research is concluded on the note where it is stated that digital health technologies play an important and ever-increasing role in enhancing health security frameworks. They promote a number of key areas in health security, such as disease surveillance and early warning, pandemic planning, and response, expedited data-informed decision-making, and enhanced healthcare provision during disasters. Future research needs to concentrate on creating effective digital health technologies, ethical frameworks, enhancing various system interoperability, as well as formulating measures on how digital inequality could competitively be alleviated for digital health to reach maximum efficacy in health security strategy.⁸ Alotaibi and Federico's has evaluated existing scientific evidence on the influence of various health information technologies on patient safety measures. They verify: "There is no doubt that health information technologies are an important tool for improving healthcare quality and safety." It is revealed by the study how tremendous the positive influence of HIT on patient safety is but proves the truth that such an influence is built on the ground of a strategic managed implementation process with an active involvement of users as well on sustained implementation.⁹ A systematic review and meta-analysis on by Peng et al assessed the effectiveness of mobile applications on medication compliance for medication management for adults with chronic diseases. Mobile applications for significantly enhanced medication compliance for medication management for adults with chronic diseases are the primary outcome for the study.¹⁰ Mobile applications are a resource for medication compliance management for medication management for chronic diseases, though sustainably developing mobile applications are needed for long-term effectiveness.¹⁰ AI facilitates patient-individualized variables-informed decisions for treatments for optimal results (e.g., lifestyle, biomarkers, genomics).¹¹ Predictive analytics: Exacerbations, risk for hospital readmission, and worsening of chronic disease may be foreseen using AI to allow preventive action and more intelligent resource allocation. Its principal advantages are improved diagnostic effectiveness, time savings during implementation, cost reduction, and improved patient engagement. The research concludes by making it definitive that selective resource allocation for AI implementation during clinical practice is inevitable.¹¹ Telemonitoring with consultancy is also an efficient management tool for patients with chronic disease when added to the equation.¹² Vivienne Nguyen et al systematic review was a synthesis of nine randomized controlled trials. Five (56%) attained clinically significant reductions in one or more primary outcomes: weight loss (22%),

glycemic improvement (HbA1c, 22%), or decreased type 2 diabetes incidence (11%).¹³ The study also validates the efficacy of eHealth for favorable health outcomes, aside from monitoring management for patients with chronic diseases.¹⁴ Kontos et al has the potential to inform or empower individuals aged fifty or over to promote healthy aging. There is a pivotal need for superior quality evidence on the eHealth effect on physiological, psychological, and social aspects of healthy aging. These recommendations, especially from the systematic review on prevention for diabetes, are extended to selected statistical evidence on favorable eHealth outcomes, increasing their priority status for the new emerging strategy for healthcare.¹⁵ The systematic study on healthy aging, though revealing potential, emphasizes more stringent research to verify the base evidence. Summary on key points and conclusions of one such study by Shah et al critically notes that digital health equity occurs within a complicated socio-ecological system where digital solution implementation by individuals is brokered by express or implicit or structure biases built into policy or practice in health or socio-cultural assumptions. Abdelghani et al research observed eHealth technologies (EMRs), clinical decision support systems (CDSS), electronic prescribing, computerized provider order entry (CPOE) in specific are concerned with various outcomes in hospitals with mixed feelings (negative, positive, neutral and mixed) during 2017-2021. The study ends by saying eHealth has humongous potential for hospitals, but it is not inevitable to realize it, as mixed as well as negative outcomes are justified.¹⁵ Health security has emerged as the world's highest issue, particularly pandemic outbreaks alongside new health perils. Information technologies such as digital health technologies such as telemedicine, artificial intelligence (AI), big data analytics for healthcare, mobile health (mHealth), EHRs, as well as internet of medical things (IoMT), are playing significant roles for the establishment of infrastructures for health security through disease surveillance mechanisms for monitoring, early outbreak detection mechanisms for detection, responding during emergencies, as well as enhanced infrastructures for resilience for infrastructures for healthcare.¹⁶ These findings on systematic reviews uncover just how indispensable digital health technologies are to the creation of health security frameworks as well as healthcare resilience. Entailing AI-enabled analytics, telecom for public health disease detection via telemedicine, mobile-based health or mHealth, EHRs, and cybersecurity technologies have helped increase health security all over the world by making it possible for a timely response to public health phenomena. It is synthesized that digital health technologies play a critical and indispensable role in creating health security frameworks.¹⁶ However, it is also uncovered by the study that some grave concerns are hampering widespread adoption as well as optimization of digital health's contribution to health security. They vary from data confidentiality issues to regulatory barriers to unequal access to digital technologies (digital inequality),

cybersecurity vulnerability, and incompatibility. A systematic review revealed strong inter-group effects for eHealth intervention: stepping count, energy expenditure, and physical activity (questionnaires and objective wearable devices). Most were positive outcomes for the included study, though the review also revealed the possibility that effectiveness may differ by category for eHealth interventions.^{17,18} For instance, some reviews revealed overall positive outcomes for "motivational reminders" and "dynamic exercise programs." On the contrary, "physical exercise self-monitoring" was an inconsistent outcome, and "digital exercise coaching" was positive in selected implementations.²⁰ Due to positive outcomes, especially for motivational reminders and dynamic exercise programs, such categories for eHealth intervention are supposed to play more salient roles for standardized public health programs for older people.¹⁹ E-health intervention holds the possibility for overcoming older people's constraints on physical activity, such as limited accessibility to traditional gyms. Systematic review offers convincing evidence for the effectiveness of interactive eHealth interventions for medication adherence for adults on long-term medication.¹⁹ A systematic review was associated with strong positive outcomes for patients with chronic conditions who are not hospitalized. It may result in many priority areas with strong positive outcomes: Service utilization: 77% (10/13) of reviews indicated favorable outcomes on "use of recommended care services." Patient-reported outcomes: "disease knowledge": 70% (7/10) showed the benefits; "patient engagement": 56% (13/28) showed the benefits; "treatment adherence": 56% (10/18) showed the benefits; "Self-management or self-efficiency": also showed the benefits. Patient satisfaction, feasibility: Patient satisfaction: 93% (28/30) of Feasibility: 97% (15/19) of studies Acceptability: 88% (23/26) of studies. Adverse effects did not occur.²² From the study it is firmly established that DHIs are effective for non-communicable disease patients' health outcomes such as cardiovascular disease patients' health outcomes, cancer patients' health outcomes, diabetics' health outcomes such as type 2 diabetes patients' health outcomes, asthmatics' health outcomes, etc.²³ They are also effective for health-related behaviors such as physical activism, sedentary behavior, diet regimen, weight reduction/management regimen, medication regimen for compliance, medication regimen, abstinence regimen for substance misuse/misuse prevention regimen.²³ It synthesizes evidence for eighty-five articles dispersed over twelve healthcare sectors for over 865,000 individual participants to establish a convincing evidence base for such inferences. Negates the evidence of digital health technology services such as mobile health, big data analytics, and artificial intelligence as being indispensable and integral parts of effective pandemic response and preparation. The COVID-19 pandemic highlighted their indispensable status. The research also emphasizes the fact that digital health technologies are "revolutionary approaches for re-defining world health security" and are capable enough to make even a prospective pandemic "less likely and much

more controllable."²⁴ Identified by study for digital intervention treatments statistically significantly decreasing by youths aged between 10 and 24 weeks on beer consumption compared to the comparison group. Standardized mean consumption mean distinction mean for alcohol was -0.12 (95% CI=-0.17 to -0.06), low heterogeneity (I²=0%). Overall, there is a concise short-term, weak efficacy for adolescent/substance misuse digital intervention treatments.²⁵ There was significant efficacy, particularly for consumption reduction of alcohol consumption. The role of digital health under taiwan's national health insurance system: progress and challenges addresses two large questions digital health has posed: how to foster digital confidence further and eradicate "digital inequality." The ambit is broad because digital health is concerned with the adoption of wearable devices, mobile health, telemedicine, health information technologies, as well as telemedicine service provision. Being a new line of instruments for backing the system of healthcare, due to reasons further enhanced accessibility to healthcare facilities, quality provision by providers themselves, and efficiency in the provision system, digital health has altered the modern-day medicine and healthcare industry today, including for Taiwan.²⁶ Electronic programs like "PharmaCloud," which was launched in 2013, as well as the "My Health Bank" mobile app launched in 2014, are functioning efficiently in the Republic of China (Taiwan). Furthermore, this platform also offers nationwide contracted health providers patient medication history aggregation. PharmaCloud also progressed even further into "MediCloud" in the year 2015, where it offers cloud center access to all test results as well as all clinical services provided (except medication) in all provider facilities. From a review of Taiwan's healthcare system recommendations summary, it could then be encapsulated thus: World-leading healthcare system's largest success for Taiwan is incorporating an electronic healthcare system whose desirable qualities are accessibility, short patient turns, and the national health insurance database. However, it notes difficulties for further expansion on primary healthcare, so it is fortified for long-term sustainability and for the NHI system, for better healthcare quality and superior prevention and primary care.²⁸ E-health for developing countries: a literature-based theoretical model presents an eHealth adoption theoretical model for emerging countries using a systematic examination of literature. The general outcome for work is that even though future adoption of eHealth happens for emerging or developed nations, there is a critical need for work directly considering the chief considerations for rolling out eHealth solutions for emerging nations.²⁹ Under a systematic review of forty-six articles, the researchers document six repeated themes for issues: Insufficient skilled stakeholders, poor infrastructure, nonacceptance, resources are limited because of funding constraints and the absence of adequate instruments or apparatus. Information communication insufficiency: There is insufficient communication of information on the benefits and

utilization of eHealth. Insufficient process-related guidance proposes a conceptual architecture founded on low-income countries' adoption of eHealth on three priority points: leadership, acceptance, and base construction. Provide context-aware recommendations versus broad ones by considering resource constraints, cultural considerations, as well as upgrades to low-income countries' infrastructures in healthcare. The impact of ehealth on healthcare quality and safety: a systematic review was a comprehensive review reporting the findings from fifty-three systematic reviews (in addition to fifty-five reviews).²⁹ Systematic reviews revealed a gigantic gap between empirically proven versus assumed benefits for eHealth technologies on safety and quality in healthcare. Despite widespread overseas interest, widespread investments, and widespread advocacy by "tech-boosters" and policymakers, low empirical evidence was established to justify many roseate claims for salubrious eHealth roles.³⁰ The study strongly recommends more attention and vigorous evaluation for eHealth technologies to improve devices for patient care. Evaluation necessitates going broad in scope, methodologically rigorous, and incorporated into policy, directly into investments and policy decisions to evidence-informed investments and concretized quality and safety gains. In short, the ultimate recommendation is to go from assuming benefits to requiring vigorous empirical evidence for widespread and costly eHealth implementation to justify such evaluation, considering the multi-faceted interplay between human and organizational factors with technology.³⁰

The comprehensive review revealed several overarching themes regarding the impact of digital health and health literacy:

Overall efficacy and impact of DHIs

Noncommunicable diseases (NCDs), physical activity promotion, medication adherence, patient empowerment and engagement, health security and pandemic response, alcohol use reduction, key enablers and effective components.

Several components and strategies consistently contribute to the effectiveness of DHIs

Behavior change techniques (BCTs), interactivity and tailoring, data-driven approaches, communication and coordination, persistent challenges and limitations, digital divide, digital trust and cybersecurity, inadequate infrastructure and resources, lack of robust evidence and evaluation, implementation complexities.

Taiwan's NHI system

Taiwan's centralized, interoperable NHIRD presents a unique opportunity for global health, offering a robust platform for AI-driven CDSS to reduce medical errors and advance precision medicine (Wang and Muennig).²⁷

The system's strengths include high accessibility, comprehensive coverage, and short waiting times, though it faces challenges with variable quality, a weak gatekeeper role, and increasing financial pressures (Wu et al).

Developing countries

eHealth implementation in developing countries requires a focus on foundational "building base" (infrastructure, human capacity), "guidance" (detailed frameworks), and "acceptance" (user engagement, trust-building) (Unknown Unknown).

Older adults and young people

While eHealth can promote physical activity in older adults, and reduce alcohol use in young people, interventions need to be tailored to specific populations, and attrition remains a challenge for long-term studies (Tedesco et al and O'Logbon et al).²⁵

CONCLUSION

Summary of digital health potential and challenges

Digital health technologies have the power to transform healthcare by improving access, quality, and safety. They can help with everything from preventing chronic diseases to strengthening global health security. However, this potential is not guaranteed and depends on addressing key challenges like the digital divide, a lack of trust, and poor infrastructure.

To fully realize the benefits of digital health, future efforts must focus on followings.

Smart investments

Governments and organizations need to invest strategically in infrastructure and policies that ensure equal access and data privacy.

Evidence-based approach

We need to move beyond simple enthusiasm for technology and conduct rigorous evaluations to prove that these solutions actually work and are cost-effective.

User-centered design

Solutions should be designed with the user in mind, considering their needs, cultural context, and any potential disparities.

Global collaboration

Sharing knowledge and best practices across borders, especially with developing countries, is essential for a truly global impact. In short, digital health is a powerful

tool, but its success relies on a coordinated, evidence-driven approach that puts equity and trust first. WHO's strategy on digital health. the world health organization (WHO) strongly supports the evolution of digital health (e-health) as a way to reshape global healthcare. The WHO's strategy highlights several key reasons why e-health is so important.

Improving health for everyone

E-health can provide accessible, affordable, and scalable solutions that improve well-being for all.

Enhancing access

Digital technologies help bridge gaps in care, making quality healthcare more accessible for people in remote or underserved areas.

Increasing efficiency

E-health can streamline healthcare processes, reduce paperwork, and make health systems more sustainable.

Strengthening prevention

Technology enables a shift from reactive care to initiative-taking, community-based prevention models.

Empowering patients and staff

Digital tools empower individuals to take more control of their health and give healthcare workers the information they need to make better decisions.

Improving quality and safety

E-health can enhance diagnostics, reduce medical errors, and provide a convincing evidence base for better care.

Leveraging innovation

The strategy embraces the potential of emerging technologies like AI and wearable devices to improve health outcomes. The WHO views e-health as a vital tool for building fair, efficient, and sustainable healthcare systems that can address current and future health challenges. It serves as a guide for nations to develop their own digital health strategies.

Recommendations

Recommendations for the healthcare system emphasize a "blended care" approach, which combines digital tools with human expertise. This model is seen as a viable and effective way to address challenges like patient disengagement and severe mental health issues. A key recommendation is to conduct more rigorous studies to confirm the effectiveness of this hybrid approach. Additionally, e-health is a multidisciplinary field, but it

suffers from "knowledge barriers" between different professions. Health systems should form multidisciplinary teams of IT specialists, doctors, and policymakers to develop and implement e-health solutions, share knowledge, and ensure usability.

Prioritizing evidence and training

The medical community must shift away from "techno-enthusiasm" and demand solid evidence to justify the widespread and costly implementation of e-health technologies. This means assessing them as rigorously as other medical interventions. A study on digital health for cardiovascular disease, for instance, found strong evidence that these interventions effectively lower disease risk. This kind of evidence is what is needed for all digital health solutions.

Other critical recommendations include continuous training for healthcare workers to keep their digital skills up to date. Patient digital literacy programs to help individuals use technology to manage their health. Awareness campaigns to build confidence in the safety and accuracy of digital tools. Sustainable infrastructure design, especially for low- and middle-income countries.

The future of healthcare in Georgia

Georgia's healthcare system faces challenges like fragmented services and high costs. Digital health offers a solution by creating a comprehensive, integrated ecosystem.

Widespread telemedicine

Virtual consultations and remote monitoring would improve access, especially for rural populations.

Integrated EHRs

A unified electronic health record system would ensure seamless data exchange between all providers.

Big data and AI

Analytics would help identify disease trends and improve clinical decisions, while automated systems would streamline administration.

Patient empowerment

Patient portals and health apps would give individuals more control over their health, supported by digital literacy programs.

Robust health security

Digital systems would enable real-time disease surveillance and improve emergency preparedness. This transformation would lead to improved accessibility,

reduced medical errors, and a more efficient, equitable healthcare system for all Georgians.

The future of digital healthcare in Georgia: a transformative vision

Georgia's healthcare system, while making strides, currently faces significant challenges including fragmented primary healthcare, workforce shortages, high out-of-pocket payments, and a fragmented health information system. Digital health offers a powerful pathway to address these issues, fundamentally reshaping healthcare delivery, and outcomes across the nation.

What digital healthcare will look like in Georgia

Digital healthcare in Georgia will evolve into a comprehensive, integrated ecosystem that leverages technology to improve every facet of patient care and system management.

Enhanced primary healthcare through telemedicine and e-learning as following.

Ubiquitous telemedicine

Virtual consultations will become a standard offering, especially for rural and remote populations, reducing travel burdens and improving access to specialists. This will extend beyond basic calls to include remote patient monitoring for chronic conditions, allowing for initiative-taking management and reduced hospital visits.

Digital training and continuous medical education

E-learning platforms, like those already initiated by UNDP and NCDC, will be expanded to provide ongoing training and certification for doctors, nurses, and administrative staff across all regions. This will help address workforce shortages and improve the quality of PHC services, closing the knowledge gap between urban and rural practitioners.

Strengthened gatekeeping

Digital tools will support family doctors in their gatekeeping role, enabling better coordination of care pathways and more comprehensive services, including chronic disease management, reducing unnecessary specialist referrals.

Why this transformation will be good for Georgia

The transition to a digitally enabled healthcare system will bring numerous profound benefits to Georgia.

Improved accessibility and equity

Digital health will bridge the significant rural-urban divide, ensuring that quality healthcare services are

accessible to all citizens, regardless of their geographic location or mobility limitations. This directly addresses the current challenges of limited access in remote areas and high out-of-pocket costs for travel.

Enhanced quality and safety of care

Reduced medical errors

AI-driven CDSS and comprehensive EHRs will significantly lower medication errors and diagnostic mistakes by providing clinicians with real-time evidence.

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