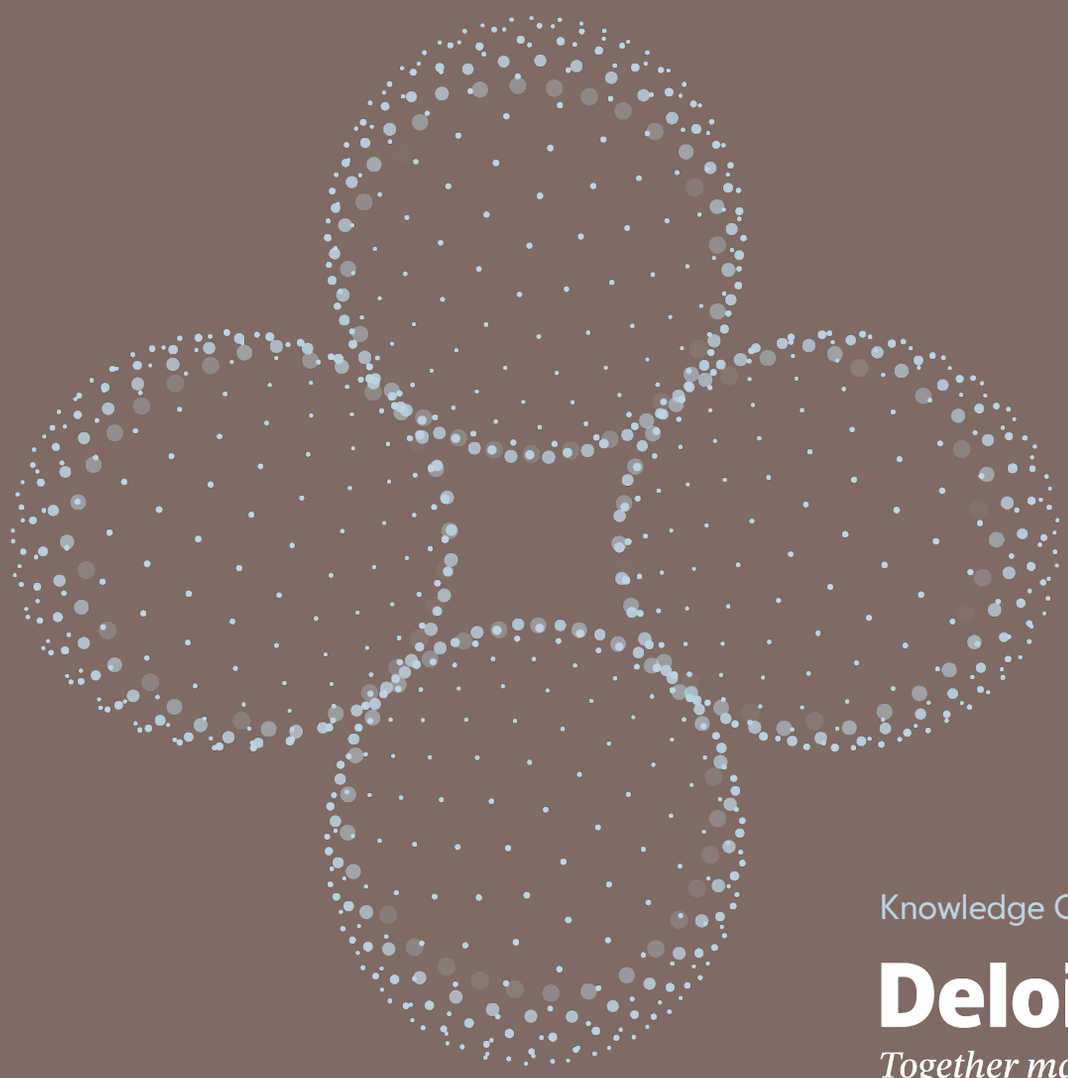
FUTURE HEALTH | A GLOBAL INITIATIVE BY ABU DHABI

Embedding Wearables into the Future of Health and Wellbeing

A framework for adoption and integration into Abu Dhabi's wider health infrastructure



Knowledge Contributor

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Together makes progress

Acknowledgements

This is a Future Health – A Global Initiative by Abu Dhabi publication, in collaboration with Knowledge Contributor Deloitte. We are grateful to all those involved for their expertise and dedication.

Publisher

Future Health – A Global Initiative by Abu Dhabi is the publisher and lead author of this publication, responsible for the initiative, research direction, editorial oversight, and findings presented herein.

Partners

This report was made possible thanks to the support of the Department of Health – Abu Dhabi (DOH – AD) and Future Health – A Global Initiative by Abu Dhabi and Future Health's Founding Partners: M42, PureHealth, Institute for Healthier Living Abu Dhabi (IHLAD), and Mubadala Bio; Strategic Partner Mediclinic Middle East; and Associate Partner Burjeel Holdings.

Knowledge Contributor

Deloitte provided the knowledge foundation, analytical frameworks, and subject-matter expertise that informed and enriched this report and is its co-author.

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Publication Date: October 2026

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Acronyms

AF	Atrial Fibrillation
AI	Artificial Intelligence
API	Application Programming Interface
BMI	Body Mass Index
CAGR	Compound Annual Growth Rate
CMS	Centers for Medicare & Medicaid Services
DOH - AD	Department of Health
ECG	Electrocardiogram
EHR	Electronic Health Record
FDA	Food and Drug Administration
FHIR	Fast Healthcare Interoperability Resources
Gen-AI	Generative Artificial Intelligence
GHTF	Global Harmonization Task Force
IHLAD	Institute for Healthier Living Abu Dhabi
IVD	In Vitro Diagnostics
NCD	Non-communicable Diseases
PGHD	Patient-generated Health Data
PMA	Pre-market Approval
UAE	United Arab Emirates

Executive Summary

Wearables are emerging as a strategic enabler for the shift from episodic, reactive care to more preventive, personalised, and continuous health and wellbeing management. Wearables are no longer just fitness tools; they are a preventive medicine infrastructure. A study published in The Lancet (2026), drawing on wearable data from more than 135,000 adults globally, found that even modest increases in daily movement and small reductions in sedentary time were associated with meaningfully lower mortality rates.[1,2] Globally, their value is no longer defined by device adoption alone, but by how effectively wearable-generated data are integrated into clinical workflows, digital health infrastructure, and public health strategies. For Abu Dhabi, this creates a timely opportunity as the emirate already combines strong digital readiness, policy ambition focused on public health and prevention, and institutional platforms that can support wearable-enabled proactive health and wellbeing management at scale, positioning it to move beyond consumer wellness and towards a broader precision health model.

The Abu Dhabi opportunity is distinctive because the foundational building blocks are already in place. Platforms and initiatives such as Sahatna, Malaffi, Health Age initiative, e-prescriptions, and the Emirati Genome Program create a credible pathway to connect wearable data with trusted health infrastructure, prevention goals, and personalized interventions. This is particularly relevant given the public health priorities, including non-communicable diseases, obesity, healthy ageing, and longevity. If scaled effectively, wearables could support earlier risk detection, more targeted prevention, stronger chronic disease management, and more continuous engagement between individuals, providers, payers, and the wider health system.

Consumer devices are gaining traction, and more targeted clinical-adjacent use cases are emerging in areas such as glucose monitoring and fall detection for older people. Yet integration into routine care is still at an early-to-mid stage. Much of the data remains routed through global consumer platforms rather than directly embedded into national systems and provider workflows, limiting clinical utility, and standardisation. The core challenge is therefore not increasing device usage, but converting fragmented consumer data into validated, interoperable, and actionable health insights.

The expansion roadmap for Abu Dhabi should shift from pilots to scaled system integration through a phased strategy that prioritises governance, infrastructure, clinical adoption, and ecosystem partnerships. In the near term, it is proposed to establish clear policy and validation frameworks, consult with stakeholders to surface key policy trade-offs while building trust through transparent engagement and inclusive dialogue, define priority use cases such as diabetes, obesity, maternity, elderly fall-risk, and preventive wellness, and strengthen interoperability and data residency rules.

[1]One Day Advisor. (2026). AI wearable technology innovations (2026): Health, fitness & beyond. One Day Advisor.
[2]Ekelund, U., Tarp, J., Ding, D., et al. (2026). Deaths potentially averted by small changes in physical activity and sedentary time: An individual participant data meta-analysis of prospective cohort studies. The Lancet, 407(10526), 339–349. https://doi.org/10.1016/S0140-6736(25)02219-6

Over the medium term, the DOH – AD could consider embedding wearable dashboards, alerts, and summaries into Sahatna, Malaffi, and provider workflows, while improving consumer onboarding, consent, and engagement mechanisms. Over the longer term, wearables can become part of a national precision prevention architecture, linked with diagnostics, AI-enabled decision support, and population health analytics.

The real opportunity is to build a trusted, preventive, and individual-centred health system in which wearables move beyond standalone devices to become integral enablers of better health outcomes, stronger public health management, and longer, healthier lives, with Abu Dhabi strongly positioned to lead this transformation.

Purpose of this Whitepaper

This whitepaper aims to assess what governments and health systems need to do to ensure that health and wellbeing systems can derive value from the rich, near real-time information that wearable health technologies now make available, and to translate that information into preventive, predictive, and personalized care. This document is a non-binding thought-leadership publication and does not constitute an official DOH - AD policy, regulation, approval, commitment, implementation plan or endorsement of any product, company or platform. Any reference to personal, health, biometric, genomic, and wearable-generated data should be aligned with applicable data protection, health data, cybersecurity, residency, and cross-border processing requirements.

The whitepaper is grounded in a central premise that the future value of wearables will not be determined by device adoption alone, but by how effectively these technologies are integrated into health and wellbeing systems, public health strategies, and patient journeys. This requires moving beyond a narrow focus on hardware innovation to address the broader ecosystem, i.e., data governance, interoperability, reimbursement, clinical validation, cybersecurity, ethics, and consumer trust.

The promise of wearables is not purely technological. Their long-term value will depend on whether regulators, policymakers, providers, payers, and technology developers can address critical issues of accuracy, privacy, interoperability, equity, digital literacy, and governance. As wearables become more embedded in health and wellbeing systems, they must be treated not simply as consumer devices, but as strategic enablers of a broader transformation toward preventive, personalised, and data-driven care.

Introduction

The Rise of Wearables and Consumer Health Technologies

Wearables and consumer health technologies have advanced rapidly, moving beyond fitness trackers that measure physical activity to advanced medical devices capable of real-time health monitoring, early-risk detection, and personalised care, thereby supporting a shift toward improved population health outcomes.[3] Rather than relying solely on episodic interactions with healthcare providers, wearables support a more continuous, proactive, and individual-centred model of care. As a result, wearables have become mainstream consumer health technologies with growing relevance for clinical care.

The evolution of wearables reflects the convergence of consumer electronics and healthcare innovation. Early devices were primarily designed to track steps, activity levels, and heart rate for fitness purposes. Over time, improvements in sensor technology and data analytics expanded their capabilities to include heart rate variability, stress levels, and other physiological indicators and are also reshaping how health data is collected, interpreted, and used.

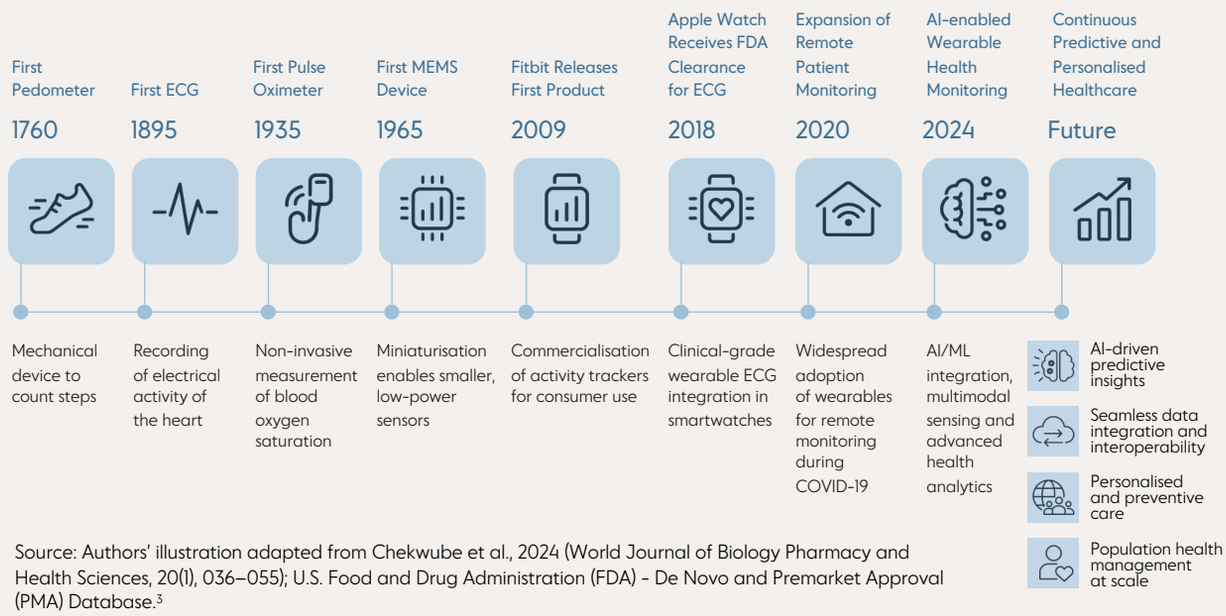
Consumers are increasingly acting as active managers of their own health, supported by real-time data from wearables, point-of-care diagnostics, digital apps, virtual coaches, and electronic medical records. This is accelerating a broader transition toward more predictive, preventive, personalised, and precise models of care, with these tools increasingly becoming part of mainstream health and wellbeing management.[4]

This evolution has been driven by several structural enablers. Advances in biosensors and miniaturised electronics have improved the ability of devices to capture health data continuously and non-invasively. Wireless communication and mobile platforms have made it possible to transmit and analyse data in real time. AI and machine learning are further enhancing the utility of wearables by enabling predictive insights, anomaly detection, and more tailored recommendations. As illustrated in Figure 1, wearables have evolved from simple activity-tracking devices to clinically validated technologies that support disease monitoring and preventive health and wellbeing.

[3]Obianyo, C. M., Ezeamii, V. C., Idoko, B., Adeyinka, T., Ejembi, E. V., Idoko, J. E., Obioma, L. O., & Ugwu, O. J. (2024). The future of wearable health technology: From monitoring to preventive healthcare. World Journal of Biology Pharmacy and Health Sciences, 20(1), 36 55. https://doi.org/10.30574/wjbphs.2024.20.1.0709
[4]Deloitte Centre for Health Solutions. (2024). Accelerating the future: Consumers are the CEO of their own health—Life sciences and healthcare predictions 2030. Deloitte LLP.

Figure 1:

Evolution of wearable health sensing technologies.



Source: Authors' illustration adapted from Chekwube et al., 2024 (World Journal of Biology Pharmacy and Health Sciences, 20(1), 036–055); U.S. Food and Drug Administration (FDA) - De Novo and Premarket Approval (PMA) Database.[3]

Wearables and Consumer Health Sensing Device Classification

Wearable technology ranges from simple activity monitors to advanced medical devices. The U.S. Food and Drug Administration (FDA) classifies medical devices into three risk-based categories:[5]

Class I: Low-risk devices, such as basic fitness trackers. Most are exempt from premarket notification requirements.

Class II: Moderate-risk devices, such as ECG-enabled smartwatches. These usually require a premarket notification to demonstrate they are substantially equivalent to an existing approved device.

Class III: High-risk devices, such as implantable cardiac monitors. These must undergo a more stringent Premarket Approval (PMA) process, which often includes clinical trials.

[3]Obianyo, C. M., Ezeamii, V. C., Idoko, B., Adeyinka, T., Ejembi, E. V., Idoko, J. E., Obioma, L. O., & Ugwu, O. J. (2024). The future of wearable health technology: From monitoring to preventive healthcare. World Journal of Biology Pharmacy and Health Sciences, 20(1), 36 55. https://doi.org/10.30574/wjbphs.2024.20.1.0709
[5]Carter, E. (2026). FDA approval for wearable devices explained. BL International Company. https://blinternationalcompany.com/blog/fda-approval-for-wearable-devices/

Not all wearable devices require regulatory clearance. Regulatory requirements depend on the device's intended use and risk classification. General wellness products, such as basic fitness trackers that monitor steps or activity, are typically subject to limited regulatory oversight, whereas devices intended to diagnose, monitor, treat, or prevent disease (e.g., ECG-enabled smartwatches) generally require review by the U.S. Food and Drug Administration (FDA). The majority of wearable devices that seek FDA clearance fall into Class II devices and are commonly cleared through the premarket notification pathway by demonstrating substantial equivalence to a legally marketed predicate device.[5,6] Novel devices without an appropriate predicate may instead follow the De Novo classification process.[5,6]

The desktop research indicates that the UAE currently follows the Global Harmonization Task Force (GHTF) classification framework, applying a four-class risk-based system for medical devices (Class I, II, III, and IV) and a separate four-tier system for IVD devices (Class A, B, C, and D).[7] However, a similar classification system could also be developed for wearable devices to support broader regulation and approvals-associated initiatives in the future.

From Episodic Care to Preventive and Personalised Care

One of the most transformative contributions of wearable technology is its ability to shift healthcare from episodic care toward preventive and personalised care. Health systems globally are under mounting pressure from rising chronic disease burdens, ageing populations, workforce shortages, and escalating costs. Traditional models of care, largely reactive, facility-based, and episodic, are increasingly misaligned with the needs of populations that require continuous monitoring, earlier intervention, and more individualized support. Wearables offer a pathway toward a more proactive model of care by generating real-time, longitudinal health data that can support prevention, disease management, and patient engagement at scale.

Combined with AI and machine learning, these data streams can support predictive analytics, helping detect risks before symptoms worsen or complications emerge. At the same time, wearables enable more personalised care by tailoring recommendations, treatment adjustments, and lifestyle interventions to an individual's real-time health status and daily routines.[3,8] For example, Google's new technology, Google's Health Guardian, offers a strong indication of where wearable technology and AI may be headed by identifying non-obvious patterns in people with prediabetes or Type 2 Diabetes through tracking factors such as sleep, physical activity, stress, illness, and food intake that may influence worsening or improving insulin resistance.[9]

[5]Carter, E. (2026). FDA approval for wearable devices explained. BL International Company. https://blinternationalcompany.com/blog/fda-approval-for-wearable-devices/
[6]U.S. Food and Drug Administration. (2026). General wellness: Policy for low-risk devices: Guidance for industry and Food and Drug Administration staff. U.S. Department of Health and Human Services, Food and Drug Administration, Center for Devices and Radiological Health.
[7]Chen, R. (2026). UAE EDE medical device registration guide (2026): Complete process after MOHAP transition. MedDeviceGuide. https://meddeviceguide.com/blog/uae-ede-medical-device-registration-guide-2026
[8]Mahajan, A., Heydari, K., & Powell, D. (2025). Wearable AI to enhance patient safety and clinical decision-making. npj Digital Medicine, 8, 176. https://doi.org/10.1038/s41746-025-01554-w
[9]Fallabel, C. (2026). Google's new Pixel Watch + Fitbit Air can flag insulin resistance—Here's what that means for type 2 diabetes. Beyond Type 1. https://beyondtype1.org/google-device-tracks-insulin-resistance/

COVID-19 accelerated the adoption of wearable health devices, supporting remote patient monitoring and strengthening telemedicine initiatives. During this period, devices such as smartwatches and biosensors were widely used to track symptoms, evaluate recovery, and reduce the need for in-person medical visits. This highlighted the vital role of wearables in maintaining continuity of care during times of crisis.[10]

Why Wearables Matter for Public Health

Wearables are no longer peripheral technologies; they are becoming a foundational layer in the emerging individual-centred health and wellbeing ecosystem.

Wearables extend health monitoring and health engagement into everyday life and are capable of supporting prevention, healthy ageing, chronic disease management, remote monitoring, and behaviour change by making health-related data more visible and actionable.[11] Their capacity to support continuous observation, early detection, remote management, and individual empowerment makes them highly relevant to some of the most pressing public health challenges of our time, including non-communicable diseases, ageing populations, and unequal access to care.

At the individual level, wearables can encourage healthier behaviours by making health data visible, actionable, and immediate, while also helping to build an ecosystem of like-minded individuals.

At the system level, they can support earlier risk identification, reduce avoidable hospital visits, and improve continuity of care for people with chronic conditions or age-related vulnerabilities.

For elderly populations in particular, remote monitoring can improve quality of life while reducing the burden on hospitals and caregivers.

For chronic disease programmes, wearables can strengthen adherence, enable more responsive interventions, and support more efficient allocation of clinical resources.

Public health relies, in large part, on behavioural change. Unlike many traditional interventions that depend on physical infrastructure and workforce-intensive delivery, wearables can potentially support large populations through digitally enabled monitoring and engagement, and can drive and incentivize behavioural change through nudging. If integrated into broader health strategies, they could contribute to prevention campaigns, maternal health programmes, elderly care models, and chronic disease surveillance initiatives, and support more accessible, equitable, and preventive models of care at the population scale.[3]

[10]Alzghaibi, H. (2025). Adoption barriers and facilitators of wearable health devices with AI integration: A patient-centred perspective. Frontiers in Medicine, 12, 1557054. https://doi.org/10.3389/fmed.2025.1557054
[11]Menassa, M., Wilmont, I., Beigrezaei, S., et al. (2025). The future of healthy ageing: Wearables in public health, disease prevention and healthcare. Maturitas, 196, 108254. https://doi.org/10.1016/j.maturitas.2025.108254
[3]Obianyo, C. M., Ezeamii, V. C., Idoko, B., Adeyinka, T., Ejembi, E. V., Idoko, J. E., Obioma, L. O., & Ugwu, O. J. (2024). The future of wearable health technology: From monitoring to preventive healthcare. World Journal of Biology Pharmacy and Health Sciences, 20(1), 36 55. https://doi.org/10.30574/wjbphs.2024.20.1.0709

The Global Wearables Landscape

Global Trends and Use Cases

The wearable technology market size was $92.9 billion in 2025 and is projected to reach $229.9 billion by 2033, growing at a CAGR of 12.1% from 2026 to 2033.[12]

The global wearables landscape is increasingly defined not only by advances in device capability but by the maturation of implementation models that embed connected technologies into routine care delivery. While early generations of wearables were largely positioned as consumer wellness tools, the market is now evolving toward clinically integrated applications that support disease management, remote monitoring, and more proactive models of care. This shift reflects a broader transformation in health and wellbeing, in which continuous, patient-generated data are being used to complement episodic clinical encounters and enable more responsive, personalised interventions.

Leading health systems have demonstrated that the value of wearables is significantly enhanced when connected devices are linked to the electronic health record (EHR), allowing patient measurements to be transmitted wirelessly and reviewed within existing clinical systems. Singapore is leveraging wearable technology to strengthen chronic disease prevention through pilot programmes led by the Health Promotion Board in partnership with Google, Abbott, and other health technology providers, reaching up to 6,000 participants. The initiatives combine devices such as continuous glucose monitors and fitness trackers with mobile apps, digital coaching, and clinician oversight to help individuals manage risks associated with pre-diabetes, high BMI, hypertension, diabetes, and hyperlipidemia through personalised, data-driven interventions. Beyond supporting self-management and healthier lifestyle choices, the programmes are also expected to generate insights into population health risks, with safeguards in place for data privacy and the potential for broader national rollout if proven effective.[13]

The global market is also moving toward coordinated, multidisciplinary models of wearable-enabled interventions. Evidence from real-world implementations shows that wearable data are most valuable when they are not used in isolation but are instead incorporated into broader care delivery systems that involve clinicians, dietary support, health coaching, and preventive care services. In this model, wearables serve as one component of an integrated health and wellbeing ecosystem, supporting more informed decision-making and more continuous engagement between patients and care teams. This reflects a wider trend in digital health towards connected, team-based care models that extend beyond the clinic.[3]

[12]Grand View Research. (2026). Wearable technology market size, share & trends analysis report, 2026–2033. Grand View Research.
[13]Ang, A. (2024). Singapore tackling chronic diseases with wearables. Healthcare IT News. https://www.healthcareitnews.com/news/asia/singapore-tackling-chronic-diseases-wearables
[3]Obianyo, C. M., Ezeamii, V. C., Idoko, B., Adeyinka, T., Ejembi, E. V., Idoko, J. E., Obioma, L. O., & Ugwu, O. J. (2024). The future of wearable health technology: From monitoring to preventive healthcare. World Journal of Biology Pharmacy and Health Sciences, 20(1), 36 55. https://doi.org/10.30574/wjbphs.2024.20.1.0709

Wearable technologies are linked to addressing disease-specific care challenges, where continuous monitoring and timely intervention can improve outcomes. Beyond diabetes and hypertension, wearables are increasingly being adopted in cardiovascular care, with ECG-enabled smartwatches supporting the early detection and longitudinal monitoring of atrial fibrillation (AF). Wearables are also being used in remote cardiac rehabilitation programmes to monitor patient recovery, personalise treatment plans, and improve adherence while reducing hospital readmissions. These applications demonstrate how wearable technologies are evolving from standalone monitoring devices into integral components of coordinated, data-driven healthcare delivery.

Kaiser Permanente and Ochsner Health System provide important examples of this model. In digital health programmes designed to manage diabetes and hypertension, connected devices such as glucometers and blood pressure monitors were tailored to integrate with the EHR, enabling timely communication between clinicians and patients when intervention was required. By embedding these interventions into clinical workflows, both organisations achieved better health outcomes than traditional models of care.[14] These examples illustrate a broader use case for wearables as tools for structured remote disease management rather than standalone monitoring devices. Similarly, Mayo Clinic has leveraged wearable-enabled remote patient monitoring for cardiovascular disease management and post-discharge follow-up, while the U.S. Veterans Health Administration has incorporated connected health technologies into chronic disease management programmes to improve care coordination and reduce hospitalisations. Together, these initiatives demonstrate the growing adoption of wearable technologies across diverse health and wellbeing systems.[15]

Another emerging use case is the deployment of wearables within patient support and engagement frameworks. Successful implementation has shown that patient-facing technology support services can play a decisive role in improving uptake and sustained use. Ochsner's O-bar model, for example, demonstrates how dedicated support teams can help individuals select connected devices, activate applications, and complete onboarding processes, thereby reducing friction in adoption and shifting the technical support burden away from clinicians. This points to a broader trend in the wearables market: the recognition that successful use depends not only on device availability, but also on the surrounding service model that enables individuals to engage confidently and consistently with technology.[14]

Wearables are also increasingly positioned within personalised care models. In practice, digital tools are most effective when complemented by human support, including nurses, allied health professionals, and health coaches who can address lifestyle management, medication adherence, nutrition, and patient education.[14] This combination of connected monitoring and tailored intervention reflects a growing emphasis on personalisation in healthcare delivery. Rather than relying solely on passive data collection, leading use cases show that wearables can support more individualised and context-sensitive care and wellbeing journeys.

[14]Smuck, M., Odonkor, C. A., Wilt, J. K., Schmidt, N., & Swiernik, M. A. (2021). The emerging clinical role of wearables: Factors for successful implementation in healthcare. npj Digital Medicine, 4, 45. https://doi.org/10.1038/s41746-021-00418-3
[15]Mayo Clinic Health System. (2021). Remote patient monitoring: Comprehensive care at home. Mayo Clinic Health System, Speaking of Health.

Studies demonstrate that Patient-generated Health Data (PGHD) from wearable devices can be standardised and integrated into health and wellbeing systems in line with international standards such as FHIR, helping close the gap between personal health data and clinical decision-making, and creating further opportunities to use PGHD in research and innovation.[16]

With reference to the conversation with healthcare providers, the expansion of wearables in health and wellbeing is closely linked to system-level enablers, particularly reimbursement alignment and clinical leadership. Sustainable adoption requires payment models that support wearable-enabled interventions within broader value-based care frameworks. At the same time, clinical champions play an essential role in driving uptake, building trust, and embedding these technologies into routine practice. These factors indicate that the global wearables market is evolving beyond a device-centric paradigm toward a more mature model in which technology, care delivery, financing, and stakeholder engagement are aligned.

Taken together, these developments suggest that the most significant use cases for wearables are no longer confined to consumer wellness or isolated monitoring functions. Instead, wearables are increasingly being used to support chronic disease management, remote patient monitoring, coordinated care delivery, patient engagement, and personalised intervention. Their strategic importance lies in their ability to connect patients, providers, and data within more continuous and proactive models of care.

[16]Abedian, S., Yesakov, E., Ostrovskiy, S., & Hussein, R. (2025). Streamlining wearable data integration for EHDS: A case study on advancing healthcare interoperability using Garmin devices and FHIR. Frontiers in Digital Health, 7, 1636775. https://doi.org/10.3389/fdgth.2025.1636775

Key Challenges to Adoption

Despite their growing promise, wearable technologies have not yet achieved seamless integration into mainstream healthcare. Adoption continues to be constrained by a set of persistent barriers that limit both clinical confidence and operational scalability. Across the literature, four challenges stand out: data quality and validation, fragmented ecosystems, privacy concerns, and barriers to clinical integration.

Data Quality and Validation

Data quality remains one of the most significant constraints on the clinical adoption of wearables. While many commercially available devices perform adequately for consumer wellness applications, their outputs are not always sufficiently accurate, reliable, or consistent for clinical decision-making. Current wearables often track only a limited number of variables with acceptable precision, while more complex indicators, such as heart rate variability, nutrition, mood, or certain behavioural measures, remain difficult to assess accurately in real-world settings. Sensor limitations, variability across devices and placements, and user adherence can all affect data integrity.[14]

This creates a critical distinction between consumer-grade usefulness and clinical-grade validity. A wearable may be effective in promoting self-awareness or supporting lifestyle change, yet still fall short of the evidentiary threshold required for diagnosis, treatment adjustment, or formal monitoring within regulated care pathways. The literature also highlights the absence of standardised protocols for data interpretation and device regulation, which further undermines confidence in wearable-generated insights. Without stronger validation frameworks and clearer performance standards, clinicians are likely to remain cautious about relying on these technologies in routine care.[17]

Fragmented Ecosystems

A second major barrier is the fragmentation of the wearable technology ecosystem. Many devices continue to operate within proprietary environments, with data stored in closed platforms that do not integrate easily with other digital health systems or EHRs. This lack of interoperability limits the ability of providers to build a unified, longitudinal view of the patient and reduces the practical utility of wearable data in clinical workflows.[17]

As data generated by wearables shifts from being classified as individual health information to clinical data, it becomes subject to increasingly stringent data residency requirements in many jurisdictions, including the UAE, creating high costs, regulatory, and infrastructure barriers for wearable companies seeking to operate in this space.

[14]Smuck, M., Odonkor, C. A., Wilt, J. K., Schmidt, N., & Swiernik, M. A. (2021). The emerging clinical role of wearables: Factors for successful implementation in healthcare. npj Digital Medicine, 4, 45. https://doi.org/10.1038/s41746-021-00418-3
[17]Canali, S., Schiaffonati, V., & Aliverti, A. (2022). Challenges and recommendations for wearable devices in digital health: Data quality, interoperability, health equity, fairness. PLOS Digital Health, 1(10), e0000104. https://doi.org/10.1371/journal.pdig.0000104

Fragmentation also creates operational inefficiencies. When wearable data cannot move seamlessly across platforms, health systems face duplication of effort, incomplete information, and difficulty scaling digital health programmes across populations or care settings. The literature is clear that achieving interoperability will require standardised data formats, open application programming interfaces (APIs), universal exchange protocols, and coordinated action among manufacturers, providers, and regulators. Without this foundational infrastructure, wearables will remain peripheral rather than fully embedded within the digital health architecture.[17]

"In this context, it's imperative to break down data silos so information can flow seamlessly across the healthcare ecosystem. With the right permissions in place, data should be readily accessible to individuals, providers, and regulators through an integrated workflow rather than requiring manual transfers at each point of care. For example, a patient's CGM data should already be available to the endocrinologist as part of routine care," explains Mr. Albarah El-Khani, COO, M42.

Privacy Concerns

Privacy concerns represent one of the most visible and consequential barriers to adoption. Wearables continuously collect highly sensitive information, including physiological data, behavioural patterns, and in some cases location data. The scale and intimacy of this data collection raise legitimate concerns regarding unauthorised access, misuse, surveillance, and secondary use beyond users' expectations. In many cases, users may not fully understand what data is being collected, how it is stored, who can access it, or how it may be shared across third parties.[17,18]

The collection of continuous biometric data raises significant concerns around data privacy, security, and user rights. These concerns extend beyond cybersecurity alone and include data collection purpose and transparency, data minimisation, user control and rights, data security, breach notification, etc.[19]
As wearable technologies become more deeply embedded in everyday life, the ethical burden on manufacturers and health systems increases accordingly. Robust privacy policies, transparent data usage agreements, and clear governance mechanisms are essential to maintaining public confidence.[17]

[17]Canali, S., Schiaffonati, V., & Aliverti, A. (2022). Challenges and recommendations for wearable devices in digital health: Data quality, interoperability, health equity, fairness. PLOS Digital Health, 1(10), e0000104. https://doi.org/10.1371/journal.pdig.0000104
[18]Capulli, E., Druda, Y., Palmese, F., et al. (2025). Ethical and legal implications of health monitoring wearable devices: A scoping review. Social Science & Medicine, 370, 117685. https://doi.org/10.1016/j.socscimed.2025.117685
[19]Doherty, C., Baldwin, M., Lambe, R., Altini, M., & Caulfield, B. (2025). Privacy in consumer wearable technologies: A living systematic analysis of data policies across leading manufacturers. npj Digital Medicine, 8, 363. https://doi.org/10.1038/s41746-025-01757-1

Clinical Integration Barriers

Even when devices are accurate and data can be exchanged securely, integrating wearables into clinical practice remains a substantial challenge. Evidence suggests that successful implementation depends less on the device alone and more on whether it is embedded within a clearly defined care model. A multi-stakeholder assessment of wearable-enabled health interventions identified several factors associated with successful implementation: a clearly defined clinical problem, integration into a healthcare delivery system, technology support, personalised experience, focus on end-user experience, alignment with reimbursement models, and the presence of clinician champions.[14]

In practice, many wearable initiatives struggle because they are introduced as isolated technology pilots rather than as components of redesigned care pathways. This can result in clinicians receiving large volumes of data without clear protocols for interpretation, escalation, or accountability.
If wearable data are not integrated into existing health information infrastructures and workflows, they risk becoming an additional burden rather than a source of clinical value. If the information is incomplete or not representative, it may lead to over- or under-diagnosis.[11] The challenge, therefore, is not purely technical; it is also organisational, operational, and financial.

For wearables to deliver meaningful impact at scale, health systems will need to move beyond experimentation and toward structured implementation models that define the use case, establish data pathways, clarify responsibilities, and ensure that insights generated by wearables are actionable within routine care delivery. Only then can wearable technologies transition from promising innovations to embedded enablers of modern healthcare.

[14]Smuck, M., Odonkor, C. A., Wilt, J. K., Schmidt, N., & Swiernik, M. A. (2021). The emerging clinical role of wearables: Factors for successful implementation in healthcare. npj Digital Medicine, 4, 45. https://doi.org/10.1038/s41746-021-00418-3
[11]Menassa, M., Wilmont, I., Beigrezaei, S., et al. (2025). The future of healthy ageing: Wearables in public health, disease prevention and healthcare. Maturitas, 196, 108254. https://doi.org/10.1016/j.maturitas.2025.108254

"The greatest barriers to leveraging consumer health data are clinical validity, integration into established care pathways, and the ability to translate health information into sustained patient engagement and behaviour change. Wearables can provide useful insights into activity, sleep, and recovery, but their accuracy and clinical relevance vary, limiting their use in medical decision-making without appropriate validation", explains Mediclinic Middle East.

"Wearables have the potential to become an important input into broader clinical care and its adoption at scale will depend on resolving three foundational issues; whether the data is sufficiently valid for medical decision-making, whether it can be integrated into health systems in a clinically meaningful and usable way, and whether governance frameworks clearly define accountability for acting on consumer-generated data", notes Burjeel Holdings.

The Abu Dhabi Opportunity

Abu Dhabi's advantage lies not only in high digital readiness, but in its ability to connect wearables to trusted health platforms, clinical pathways, and broader prevention goals.

Abu Dhabi is well-positioned to become a regional and global leader in wearable-enabled healthcare. Unlike many markets where wearable adoption remains largely consumer-led and disconnected from care delivery, the emirate already has the digital foundations, policy ambition, and institutional platforms to integrate wearable data into a broader health ecosystem. This creates a credible pathway for wearables to evolve from lifestyle tools into enablers of prevention, early intervention, and more personalised care.

What makes the opportunity distinctive is the combination of an active regulatory agenda, a strong health information exchange infrastructure, and a focus on prevention, longevity, and quality of life. Initiatives such as Sahatna, Emirati Genome Program, Health Age determination, e-prescription functionality, and Wellness dashboard indicate that the market is already moving beyond isolated pilots toward population-scale use cases. If scaled effectively, the emirate can position wearables as part of a wider precision health model rather than a standalone digital wellness trend.

Mr. Albarah El-Khani, COO, M42 states, *"Future progress should focus on interoperability by ensuring access to wearable data, enhancing adoption and workflow integration, and ultimately establishing a fully integrated, bidirectional ecosystem."*

Current State of Wearables Adoption

Wearables adoption in the UAE is established and growing, but clinical integration remains in the early-to-mid stage and will depend on stronger interoperability, validation, and sustained user engagement.

Wearables adoption in the country appears to be progressing across two distinct segments. On one side, consumer devices such as smartwatches are gaining traction as wellness and activity-monitoring tools, reflecting rising health awareness and a stronger "test-and-track" mindset that accelerated during and after COVID-19. On the other hand, semi-clinical and clinical-adjacent devices such as continuous glucose monitoring patches and elderly fall-detection tools are demonstrating clearer healthcare use cases, especially in chronic disease management, ageing, and remote monitoring.

Sahatna's new Health Age initiative represents a leading government effort to turn health data into meaningful consumer action at scale. Through Sahatna, which exists both as a standalone application and as an integrated service within TAMM, the DOH - AD combines wearable data with longitudinal health records from Malaffi to generate a personalized "health age" score, giving users ongoing insights into their overall wellness and the specific clinical and lifestyle factors influencing it. Abu Dhabi is among the first to deploy this kind of capability at a population level, with the underlying technology already built and now moving toward market rollout. From a technical perspective, integration is currently enabled through Apple Health and Google Health, which act as common aggregation layers for data from multiple wearable devices despite variations in device standards, data frequency, and available metrics.

Private-sector players can also lead the way in advancing more integrated, preventive models of care through innovative partnerships, such as Unilabs' collaboration with WHOOP. Under this model, individuals can access integrated testing and app-based insights that explain how out-of-range results may affect their health and wellbeing, while keeping therapeutic decisions anchored with clinicians. This moves the offering beyond standalone diagnostics toward a more comprehensive clinical insight solution, enabling individuals to better understand their health, have more informed discussions with their doctors, and support more coordinated care planning.

Recently, during the 'Make it in the Emirates Forum 2026', in Abu Dhabi, Mubadala Investment Company and WHOOP announced a strategic partnership aimed at advancing proactive health, performance science, and preventive healthcare innovation in the UAE, and launching the WHOOP-Mubadala Health Research Initiative focusing on bringing research capabilities and international expertise into the local ecosystem.[20] At scale, such private sector-led models could contribute to broader population health goals, help manage rising healthcare expenditure, and provide a pathway for expansion beyond Abu Dhabi to the wider population.

At present, however, adoption remains stronger on the consumer wellness side than in routine clinical care and public health transformation, as the latter requires data to be collected and aggregated to inform health priorities. Much of the existing wearable data enters the health and wellbeing ecosystem indirectly through intermediary platforms such as Apple Health and Google Health. While this provides a practical starting point, it also constrains data richness, consistency, and real-time utility, limiting the full clinical value that providers and regulators are seeking to unlock.

Globally, consumer adoption has reached a level where wearables can support large-scale digital health initiatives. According to Deloitte's 2025 U.S. Health Care Consumer Survey, which surveyed 2,008 U.S. adults, 37% of consumers reported using monitoring devices for health conditions, while another 47% used devices for fitness and health tracking.[21]

[20]Entrepreneur Middle East Staff. (2026). Mubadala backs WHOOP expansion in UAE with US$75 million investment. Entrepreneur Middle East. https://mena.entrepreneur.com/business-news/mubadala-backs-whoop-expansion-in-uae-with-us75m-investment
[21]Janisch, A., Gerhardt, W., & Shukla, M. (2025). 2026 US health care outlook: Three critical strategies shaping a more resilient, technology-enabled future. Deloitte Insights. https://www.deloitte.com/global/en/insights/industry/health-care/life-sciences-and-health-care-industry-outlooks/2026-us-health-care-executive-outlook.html

In Deloitte's separate 2022 Fresh Food Consumer Survey (N = 2,054), 42% of consumers indicated they would be willing to share health data with their grocer in exchange for personalised food recommendations.[22]

Abu Dhabi appears to be demonstrating a similar level of consumer openness to wearable-enabled health engagement. This is reflected in the Sahatna platform, which has begun integrating wearable data from Apple Health and Google Health to support data-driven wellness insights and more personalised population health interventions.

At the same time, healthcare providers are increasingly recognising the clinical value of wearable-generated data to support remote patient monitoring, chronic disease management, cardiovascular risk assessment, post-discharge follow-up, and virtual care. However, widespread clinical adoption remains constrained by challenges in clinical validation, data quality, interoperability, workflow integration, reimbursement, and the absence of standardised clinical guidance for interpreting wearable-generated data.

Regulators are also responding to the rapid evolution of wearable technologies by moving beyond traditional device regulation towards broader governance frameworks that encompass clinical evidence, cybersecurity, privacy, interoperability, AI oversight, and the appropriate use of individual-generated health data. These frameworks will be critical in distinguishing wellness technologies from clinically validated medical devices while maintaining public trust and enabling responsible innovation.

Meanwhile, industry continues to accelerate innovation across biosensors, AI-enabled analytics, digital therapeutics, and connected health platforms. Increasingly, device manufacturers, technology companies, healthcare providers, regulators, payers, and life sciences organisations are collaborating to develop interoperable ecosystems capable of integrating wearable-generated data into routine clinical care and population health management. For instance, the DOH - ADis exploring direct integration with popular wearable device providers, which could provide access to rich data and enable population-wide impact at scale.

For Abu Dhabi, these global developments coincide with emirate-wide ambitions to advance preventive, personalised, and digitally enabled healthcare. The emirate has moved beyond basic consumer experimentation and has begun embedding wearable data into health system infrastructure, as seen in Health Age and the Sahatna-Malaffi ecosystem. Yet the market has not fully matured into one where wearable insights are routinely standardised, trusted, and operationalised across care pathways. The opportunity is therefore not simply to increase the use of wearable devices, but to integrate wearable-generated data into a trusted health and wellbeing ecosystem that supports individuals, clinicians, health systems, and policymakers in improving health outcomes.

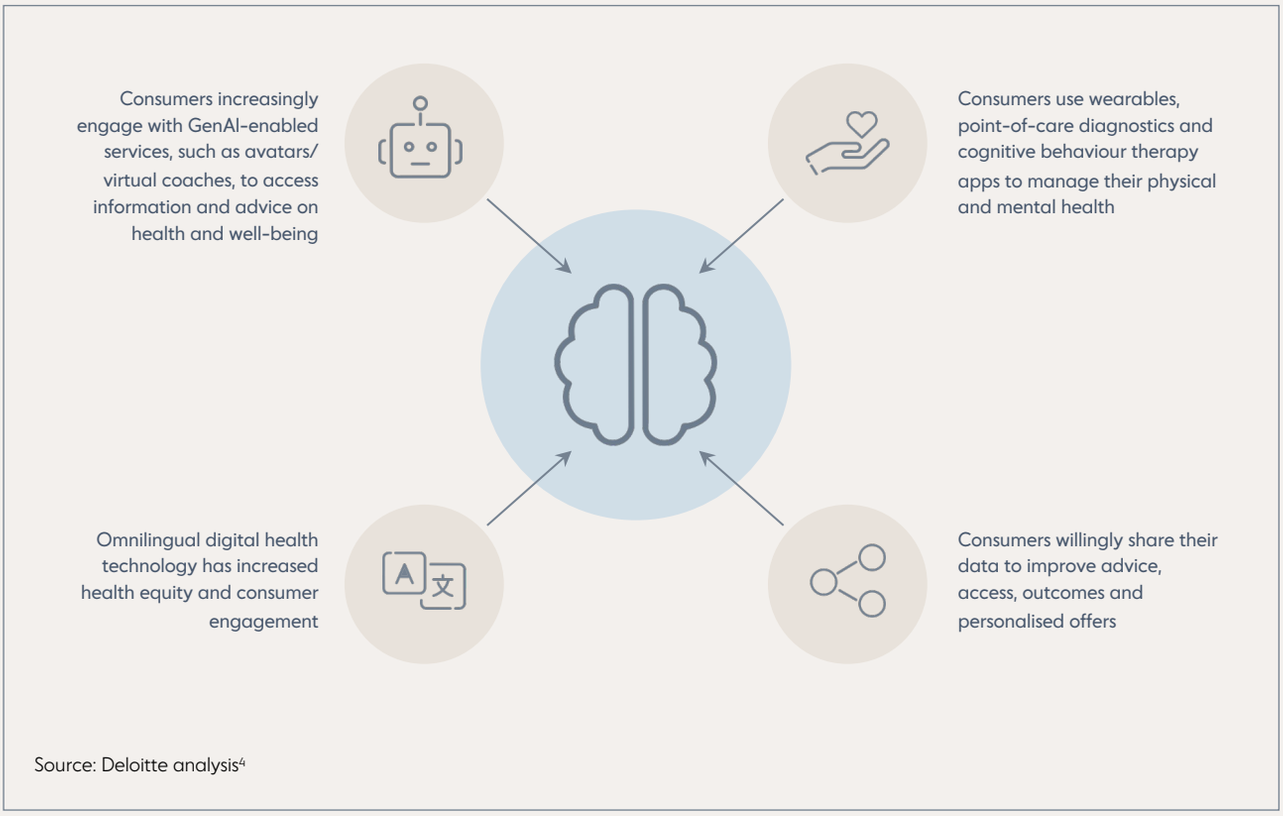
[22]Steinhart, M., Hupfer, S., & Upadhyaya, J. (2022, December 8). Healthy holidays: Wearables and health data may tip the scales toward better nutrition. Deloitte Insights.

Stakeholder Perspectives

Wearable technologies are becoming part of a broader consumer health ecosystem as consumers are becoming the CEOs of their own health, increasingly expecting preventive and personalised products and services that help them live longer, healthier lives.4 AI-enabled services, digital therapeutics, point-of-care diagnostics, personalised nutrition, and connected health platforms work together to empower individuals and support healthier behaviours. Sustained adoption, however, will depend on trust, usability, affordability, and the perceived value of wearable-generated data being used securely and meaningfully.[3]

Figure 2:

Wearables are becoming part of a connected, consumer-centric digital health ecosystem, enabling personalized, preventive and data-driven healthcare, Deloitte Analysis[4]



[3]Obianyo, C. M., Ezeamii, V. C., Idoko, B., Adeyinka, T., Ejembi, E. V., Idoko, J. E., Obioma, L. O., & Ugwu, O. J. (2024). The future of wearable health technology: From monitoring to preventive healthcare. World Journal of Biology Pharmacy and Health Sciences, 20(1), 36 55. https://doi.org/10.30574/wjbphs.2024.20.1.0709

[4]Deloitte Centre for Health Solutions. (2024). Accelerating the future: Consumers are the CEO of their own health—Life sciences and healthcare predictions 2030. Deloitte LLP.

Providers

Providers see significant upside in wearable-enabled care, but only if data is clinically meaningful, operationally manageable, and embedded within integrated care pathways.

From the provider perspective, wearable data is increasingly seen as a valuable addition to prevention, diagnosis, and treatment. Providers recognise that wearables can enrich the traditional episodic view of patients by offering a more continuous picture of sleep, activity, glucose trends, recovery, and other behavioural or physiological indicators. This is particularly compelling when wearable data is combined with diagnostics, biomarkers, imaging, genomics, and wellness data to create a more holistic view of individual health and wellbeing.

Providers also see commercial and clinical potential in integrated service models. Partnerships that combine laboratory testing with wearable insights demonstrate how consumer-facing healthcare offerings can become more personalised and actionable. For providers, the strongest value proposition is not the wearable device itself, but the ability to embed wearable insights into a broader care model that supports prevention, risk stratification, follow-up, and longitudinal monitoring.

At the same time, providers are clear about the execution barriers. To derive clinical value, data must be simplified, validated, and presented in ways that fit existing workflows rather than creating an additional burden for clinicians. Providers also emphasise the need for strong governance, local data hosting, and targeted operating models, particularly in higher-value segments such as chronic disease, elderly care, and youth prevention.

Mediclinic Middle East believes that *"successful integration of wearable technologies starts with a clearly defined clinical or behavioural objective, connects data to the right care pathways, and delivers tangible value to patients. Wearables should be deployed against specific health needs such as chronic disease monitoring, weight management or lifestyle improvement, with medical-grade devices used where clinical decisions depend on precise measurements and consumer devices supporting motivation, coaching and engagement, which requires a clinically governed digital infrastructure that integrates data from multiple devices, prioritises meaningful trends and alerts rather than raw information, and embeds clear accountability, escalation protocols and response models within existing systems."*

"The real enablers of wearable adoption are not the devices themselves, but the systems around them including evidence-based device classification and data stratification, close collaboration between clinicians and technical teams to embed insights into care delivery, and clear policy frameworks that define consent, accountability, and clinical use. When validity, workflow design, and policy are addressed together, wearable data can become a practical asset for both clinical decision-making and population health management", states Burjeel Holdings.

"The real objective should be decision integration, not data integration. Wearable insights must translate into meaningful clinical decisions, giving healthcare professionals the right information at the right time to support earlier intervention, more personalised care and better patient outcomes," explains Aamer Ejaz, Chief Digital Officer, PURA

Regulators and Policy Makers

Regulators see wearables as a strategic public health asset, but are prioritising governance, trust, localisation, and adoption to ensure scale does not outpace system readiness.

From the regulator's perspective, wearables represent an important lever to shift the health system toward prevention, personalisation, and population health management. The DOH - AD's work to integrate wearable data into Sahatna and Malaffi, and to launch Health Age using localized Abu Dhabi population data, reflects a deliberate effort to translate digital signals into real-world health action. The regulatory vision goes beyond data collection. Health Age already provides AI-enabled insights of the factors influencing an individual's health, and the ambition is for Sahatna to evolve into a health companion that supports healthier behaviors and reduces the risk of disease.

The regulator's perspective is also shaped by three structural concerns:

1. Data privacy and residency are critical, particularly because much wearable data sits outside the UAE in global technology ecosystems

2. Trust and standardisation remain unresolved, as devices and brands use different algorithms and methodologies

3. Long-term adoption cannot be assumed; consumer engagement and adherence require well-designed incentives and sustained value for nationals, residents, and clinicians

Importantly, the regulator appears to view wearables as one building block within a broader precision health agenda. The longer-term ambition extends beyond wearable integration alone and connects to wider initiatives such as genomics, e-prescriptions, and connected care infrastructure. This suggests a strategic direction in which wearables are not the end state, but an input into a more proactive and data-driven health system.

Healthcare Payers

Wearables offer strongest potential when positioned as part of prevention and chronic disease management programmes, particularly for priority conditions such as obesity, cardiovascular disease, and other non-communicable diseases, with the objective of reducing avoidable claims, hospitalisations, and readmissions over time.

Payers are likely to support adoption where there is a clear, measurable link between wearable-enabled interventions and clinical as well as economic outcomes, and where devices can be integrated into broader health infrastructure through standardised data governance, centralised consent-based data sharing, and incorporation into clinical workflows and personalised care pathways. At the same time, payer confidence will depend on resolving key barriers including data quality and variation across devices, affordability, fraud and abuse monitoring, patient trust in data use, and the ability to isolate the impact of wearables from other interventions. In this context, incentive-led models such as reduced premiums or copays, aligned to a shared value insurance approach, could help drive uptake and behaviour change, but sustained payer participation will require supportive regulation, strong actuarial and analytics capabilities, and evidence that upfront investment in wearable-enabled programmess drives behavioural change to the extent that it delivers long-term claims savings and population health benefits.

"From a payer perspective, investment in wearables should be driven by their ability to improve health outcomes, rather than just generate more data. Through Daman's collaboration with Pura, wearable technology is already being used to encourage physical activity, track progress and support healthier lifestyles. The next step is to connect these insights more closely with preventive care and measurable health outcomes," outlines Aamer Ejaz, Chief Digital Officer, PURA

In the US, the Centers for Medicare & Medicaid Services (CMS) and the Food and Drug Administration (FDA) have launched several significant initiatives to support the integration of wearables, digital health technologies, and coaching applications into patient care under Medicare, the public health insurance programme for seniors and certain individuals with disabilities. Under the 10-year ACCESS pilot programme, CMS aims to provide upfront reimbursement to device companies for the use of wearables and apps by Medicare beneficiaries with conditions including chronic musculoskeletal pain, depression, diabetes, and hypertension. However, full reimbursement is linked to demonstrated improvements in health outcomes, underscoring the need for robust evidence generation and comprehensive data reporting.[23]

[23]Cohen, J. P. (2026). As Medicare expands access to wearables, outcomes data key to future coverage. Forbes. https://www.forbes.com/sites/joshuacohen/2026/06/16/health-outcomes-data-for-wearables-key-to-medicare-coverage-expansion

Other Health Ecosystem Players, e.g., diagnostic providers and life sciences companies

From a diagnostic provider's perspective, wearables are becoming an important extension of the healthcare value chain across prevention, diagnosis, and ongoing treatment monitoring. Rising adoption, combined with the stronger culture of testing and self-monitoring that emerged during COVID-19, has increased demand for continuous, actionable health insights rather than one-off diagnostic snapshots. For providers, this creates an opportunity to combine wearable-generated data with laboratory results, imaging, and other clinical information to build a more complete longitudinal health profile for each individual. In turn, this can help identify risk earlier, detect patterns that may not be visible through episodic testing alone, and support more timely interventions grounded in both clinical and lifestyle data.

The Unilabs and WHOOP model illustrates how this can translate into better health outcomes and care delivery. By linking wearable data on sleep, recovery, and performance with biomarkers and other diagnostic inputs, providers can better understand the drivers of health issues, monitor improvement over time, and identify trigger points for action, such as whether poor sleep is associated with vitamin D deficiency, cortisol imbalance, or other clinical markers. This shifts diagnostics from a narrow reporting function toward a more holistic clinical insight offering, enabling individuals to better understand their results, engage in more informed discussions with clinicians, and support integrated care planning.

For life sciences companies, wearables extend the value chain further, from remote data collection in clinical trials to monitoring how treatments perform in everyday life. Yet for diagnostic providers and life sciences companies alike, the value of wearable data will ultimately be judged not by how much is collected, but by whether it leads to better health. As Dr. Nicole Sirotin, CEO, Institute for Healthier Living Abu Dhabi (IHLAD) explains, *"We can measure how many people wear a device and how many data points they generate. Neither tells us whether their health has improved. What matters is whether reliable signals lead to timely support, meaningful action, and better health outcomes. If we want health systems to prioritize prevention, we need care models and incentives that reward earlier intervention and sustained health. Abu Dhabi has an opportunity to develop a model that other health systems can learn from."*

Wearable Industry Leaders

The wearable industry is moving beyond its original consumer wellness positioning toward a more integrated role in clinical care and is capable of monitoring, detecting, and supporting care pathways. Adoption is being driven by the ability of wearables to continuously track physiological trends, establish individual baselines, and detect meaningful changes over time that may indicate deterioration, recovery needs, or elevated risk. This has particular value in supporting prevention and early intervention, as wearable data can help individuals adjust behaviour, prompt users to seek medical advice when abnormalities emerge, and provide caregivers with longitudinal insight into chronic conditions.

At the same time, wider adoption will depend on how effectively wearable data is integrated into broader health infrastructure rather than remaining siloed in standalone consumer platforms. The industry perspective suggests that the greatest value comes when wearable insights are connected to clinical pathways, provider workflows, and regulated care environments, including the ability to generate alerts, support triage, and complement traditional clinical data such as blood pressure and laboratory results. Interest from regulators and payers is also increasing, as reflected in participation in outcome-linked care models where devices are funded for at-risk populations and data can be incorporated into formal health records. This points to a broader shift in the market where wearables are increasingly being viewed not only as engagement tools, but as potential infrastructure enablers for continuous monitoring, risk stratification, and more proactive models of care.

"We are seeing wearables increasingly used in high-performance and mission-critical settings, from athlete monitoring to military health and fatigue management for naval personnel. This growing use reflects increasing confidence in their practical and operational value," explains Jonathan Jeffrey, Chief Corporate Affairs Officer, WHOOP.

Opportunities for Public Health Transformation

Wearables can become a practical tool for population health transformation in Abu Dhabi by enabling earlier action, more personalised prevention, and more continuous management of health risks. This will also support the overall objective and core pillars of Abu Dhabi Public Health Center, i.e., early detection and prevention, a health-conscious population, and system-level readiness. The most significant public health opportunity is to use wearables to shift healthcare from episodic intervention to continuous prevention. When connected to trusted health platforms and clinical pathways, wearable data can help identify deteriorating risk profiles earlier, prompt healthier behaviours, and support more timely interventions.[11]

This is particularly relevant in a market such as the UAE, where non-communicable disease prevention, longevity, and quality of life are strategic priorities given the country's growing burden of non-communicable diseases (NCDs), which account for approximately 55% of all deaths, with cardiovascular diseases responsible for around 34% of total mortality.[24] Adult Obesity is another major public health challenge, affecting approximately 32% of adults and increasing the risk of diabetes, cardiovascular disease, and other chronic conditions.[25] Wearable technologies can support earlier risk detection, continuous monitoring, and lifestyle interventions, helping reduce avoidable hospitalisations, improve quality of life, and enhance continuity of care.

Several use cases stand out, e.g., in chronic disease, wearables can support ongoing monitoring, adherence, and prognosis for individuals with diabetes, obesity, and other high-risk conditions. In maternal health, cancer follow-up, and general wellness visits, wearable-derived insights can provide clinicians with additional context between appointments. In elderly care, fall detection and remote monitoring can support safer ageing and earlier response. In children and adolescents, appropriately governed wearable-linked data could enable earlier prevention and predictive insights around activity, sleep, and broader health risk.

The expected outcomes are both behavioural and clinical. On the behavioural side, personalised feedback nudges and incentives can improve physical activity, sleep hygiene, and adherence to healthy routines. On the clinical side, better longitudinal monitoring could support earlier detection of deterioration, more personalised treatment adjustments, improved chronic disease control, and potentially lower avoidable utilisation over time. At the population level, the ability to combine wearable, clinical, and lifestyle data could strengthen segmentation, prevention targeting, and evidence-based wellness policy and interventions.

[11]Menassa, M., Wilmont, I., Beigrezaei, S., et al. (2025). The future of healthy ageing: Wearables in public health, disease prevention and healthcare. Maturitas, 196, 108254. https://doi.org/10.1016/j.maturitas.2025.108254
[24]Elmusharaf, K., Chestnov, R., & Jung, J. (2021). The case for investment in prevention and control of non-communicable diseases in the United Arab Emirates. Geneva: UNDP, WHO, UNIATF, GHC.
[25]World Health Organisation. (n.d.). United Arab Emirates: Health data overview. WHO Data.

The opportunity becomes even more powerful in Abu Dhabi when wearable-generated data is considered alongside the Emirati Genome Program. Together, these assets could unlock a new frontier of population health intelligence, combining genomic predisposition with continuous real-world health and behaviour data to enable prevention, risk stratification, and personalised interventions at a scale and level of sophistication that is unprecedented in ambition. Over time, linking genomic, clinical, and wearable data through trusted health platforms could position Abu Dhabi at the forefront of precision public health.

Strategic Imperatives for Abu Dhabi

To unlock the full value of wearable technologies, the emirate needs to focus on moving beyond fragmented consumer adoption and pursue a more coordinated strategy. This will require aligning clinical, regulatory, technological, and financial enablers so that wearables can support prevention, personalised care, population health, and longevity objectives at scale.

- Embedding wearables within preventive and personalised care models rather than treating them solely as consumer wellness tools
- Integrating wearable data into digital health infrastructure via Malaffi
- Establishing clear regulatory, privacy, and cybersecurity frameworks
- Supporting evidence generation, validation, and disease-specific use cases
- Engaging healthcare payers in the design of reimbursement models, incentive structures, and value-based care pathways to encourage adoption and link it to measurable health outcomes
- Fostering ecosystem coordination and partnerships across regulators, providers, payers, and device manufacturers to strengthen evidence generation, local validation, and innovation
- For Abu Dhabi, the consumer lens is especially important because adoption will depend on trust across a diverse population with varying levels of digital literacy, language preference, health awareness, and willingness to engage with digital tools

The emirate now needs a scale-up strategy centred on governance, priority use cases, direct integration, workflow readiness, incentives, and ecosystem-wide collaboration.

Integrating wearable technologies into the broader health infrastructure can play an important role in advancing Abu Dhabi's vision for health and longevity. As the emirate shifts toward preventive, personalised, and data-driven healthcare, wearables can support continuous monitoring of health indicators, early risk detection, and the generation of real-world evidence across populations.

This aligns closely not only with Abu Dhabi's broader strategy of combining clinical excellence, AI-enabled innovation, and population health science to keep people healthier for longer, but it also reinforces Abu Dhabi's ambition to strengthen its position as a global leader in longevity medicine.

A forward-looking perspective

Abu Dhabi has the potential to become one of the first markets globally to embed wearable data into a precision prevention model. The building blocks are already visible, e.g., digital health infrastructure, localised analytics, regulatory ambition, large-scale deployments of select use cases, and an increasingly health-aware population. If these assets are effectively connected, wearable data could evolve from passive tracking to an active input for prevention, clinical decision support, and personalised and population health-level interventions.

The next phase will likely be defined by a shift from conceptualisation to institutionalisation. Early wins may come from wellness portals, targeted chronic care pathways, and incentive-linked engagement models. Over time, more advanced models could emerge in which wearables are integrated with diagnostics, genomics, and AI-enabled care navigation to support lifelong health management rather than isolated episodes of treatment.

The long-term opportunity is to use wearables not simply as devices, but as a strategic entry point into a more preventive, precise, and individual-centred health and wellbeing system, while also serving as an additional data point that reinforces and connects with broader, ongoing initiatives and ambitions in this space.

Figure 3 illustrates one possible future-state ecosystem, demonstrating how wearable technologies can enable a seamless continuum of care, from increasing population awareness and early risk detection to personalised prevention, continuous monitoring, and population health management. It also highlights the complementary roles of individuals, healthcare providers, regulators, and the health system in transforming wearable-generated data into actionable health outcomes.

Figure 3:

A future where wearables power predictive, preventive and personalised healthcare

Framework for Adoption of Wearables and its Integration into Wider Health Infrastructure

Guiding Principles

The successful integration of wearable technologies into the wider health ecosystem requires a coordinated framework that balances innovation with patient safety, clinical value, and public trust. The proposed framework is underpinned by six guiding principles that should inform the design, implementation, and evaluation of wearable-enabled health and wellbeing initiatives. These principles ensure that the adoption of wearable technologies contributes to improved health outcomes while supporting a secure, interoperable, and sustainable digital health ecosystem.

Individual-centred health and wellbeing	Wearable technologies should empower individuals to actively manage their health by enabling continuous monitoring, personalised health insights, and early intervention.[26] The implementation of wearable-enabled services should focus on improving health outcomes, enhancing experience, and supporting preventive models of care.
Evidence-based implementation	The integration of wearable technologies into healthcare should be supported by robust clinical evidence demonstrating safety, effectiveness, and measurable improvements in health outcomes.
Interoperability by design	Wearable-generated health data should be capable of seamless integration with electronic health records (EHRs) and digital health platforms through standardised data formats and secure interoperability standards. This enables healthcare professionals to incorporate wearable-derived information into routine clinical workflows while improving continuity of care.[26]

[26]Metwally, A. A., Heydari, A. A., McDuff, D., Solot, A., Esmaeilpour, Z., Faranesh, A. Z., Zhou, M., Narayanswamy, G., Xu, M. A., Liu, X., Yang, Y., Savage, D. B., Malhotra, M., Heneghan, C., Patel, S., Speed, C., & Prieto, J. L. (2026). Insulin resistance prediction from wearables and routine blood biomarkers. Nature, 652, 451–461. https://doi.org/10.1038/s41586-026-10179-2
[27]World Health Organisation. (2025). Global strategy on digital health 2020–2027. Geneva: World Health Organisation.

Privacy, security, and trust	Privacy and data security represent important considerations in the adoption of wearable-enabled digital health systems. Wearable technologies can generate sensitive personal health information, making strong safeguards for privacy, confidentiality, data security, and appropriate data use essential. Health data should be protected through robust legal and regulatory frameworks that address unauthorised processing, cybersecurity, accountability, and governance. In addition, secondary uses of health data, including research and data analytics, should be managed appropriately and transparently to maintain public trust.[26,27]
Equity and accessibility.	Wearable-enabled healthcare should be accessible to all population groups regardless of age, socioeconomic status, geography, or digital literacy. National implementation strategies should seek to reduce health disparities by promoting equitable access to digital health technologies and supporting inclusive service design.[26]
Collaboration and innovation	Sustainable implementation requires collaboration between government entities, healthcare providers, payers, regulators, academia, technology developers, and industry partners. Such partnerships facilitate innovation, establish common standards, generate clinical evidence, and accelerate responsible adoption across the health and wellbeing ecosystem.[26]

The proposed framework comprises five mutually reinforcing pillars that together create the technical, regulatory, clinical, and organisational foundations required for the safe, scalable, and sustainable integration of wearable technologies into Abu Dhabi's wider health infrastructure.

[26]Metwally, A. A., Heydari, A. A., McDuff, D., Solot, A., Esmaeilpour, Z., Faranesh, A. Z., Zhou, M., Narayanswamy, G., Xu, M. A., Liu, X., Yang, Y., Savage, D. B., Malhotra, M., Heneghan, C., Patel, S., Speed, C., & Prieto, J. L. (2026). Insulin resistance prediction from wearables and routine blood biomarkers. Nature, 652, 451–461. https://doi.org/10.1038/s41586-026-10179-2

Pillar 1: Technology and Interoperability

Interoperable technology infrastructure is essential to realising the population health value of wearable devices, as the data they generate can only support clinical decision-making and continuity of care when securely integrated into existing healthcare information systems. An interoperability framework should therefore enable standardised data formats, secure APIs, and integration with EHRs so wearable data becomes part of longitudinal patient records rather than remaining siloed in consumer apps. In addition, strong digital infrastructure supports broader population health analytics, research, and AI applications, while also ensuring scalability, cybersecurity, and compatibility with future devices and innovations, making it the foundation for sustainable wearable-enabled healthcare services.[26,27]

Highlighted below are critical questions that should be addressed to scale wearables from pilot use cases to wider health infrastructure.

Policy Question	Key Considerations
What data should be integrated, at what level of reliability, and for which use cases?	It's imperative to determine which types of wearable data are genuinely relevant to population health and care delivery, rather than allowing indiscriminate ingestion of all consumer-generated data.
What interoperability standards should all wearable integrations comply with?	A core regulatory question is whether Abu Dhabi will mandate a common interoperability architecture for wearable data exchange, and if so, what that architecture would include.
How will the regulator ensure data provenance, quality, and trust across multiple device ecosystems?	Wearable data is useful only if clinicians and population health systems can trust its source, how it was generated, and whether it is accurate enough for the intended purpose.
What is the target architecture for data exchange: centralised, federated, or hybrid?	It's critical to identify whether wearable data should flow into a central platform, remain distributed across provider and platform environments, or operate through a hybrid model.
How will wearable data be embedded into provider workflows and wider digital platforms without creating data overload?	The chosen standards and architecture should support future use cases such as longitudinal risk stratification, behavioural nudges, remote monitoring algorithms, and linkage with genomics, diagnostics, prescriptions, and lifestyle data.

[26]Metwally, A. A., Heydari, A. A., McDuff, D., Solot, A., Esmaeilpour, Z., Faranesh, A. Z., Zhou, M., Narayanswamy, G., Xu, M. A., Liu, X., Yang, Y., Savage, D. B., Malhotra, M., Heneghan, C., Patel, S., Speed, C., & Prieto, J. L. (2026). Insulin resistance prediction from wearables and routine blood biomarkers. Nature, 652, 451–461. https://doi.org/10.1038/s41586-026-10179-2
[27]World Health Organisation. (2025). Global strategy on digital health 2020–2027. Geneva: World Health Organisation.

Pillar 2: Data Governance and Privacy

The effective integration of wearable technologies relies on strong public trust in how personal health information is managed. Because these devices continuously capture sensitive physiological, behavioural, and lifestyle data, a governance framework is needed to define clear policies on data ownership, informed consent, access, cybersecurity, data quality, retention, and ethical use. Such governance should ensure that wearable-generated data are collected, stored, shared, and processed in accordance with legal and ethical standards, while supporting healthcare, research, and population health planning. Transparency around data use, sharing practices, access rights, and privacy protections is also essential to build confidence and encourage adoption, while robust cybersecurity measures help protect against unauthorised access, breaches, and misuse, reinforcing long-term trust.[26,27]

Highlighted below are critical questions that should be addressed as the health system plans for wearable adoption and its integration into wider health infrastructure.

Policy Question	Key Considerations
What exactly can wearable data be used for, and when does it become regulated health data?	Define the boundary between wellness data and clinical data, as governance obligations become stricter, the closer data moves to care delivery and core public health decision-making.
What consent model should govern wearable data across clinical care, public health, research, and secondary use?	The governance model needs to clarify what individuals are consenting to, how they can withdraw or modify permissions, and how consent will be managed across platforms such as Sahatna, Malaffi, and other population health systems.
Who can access wearable data, at what level of detail, and under what authority?	Clearly define access rights to avoid risk of overcollection, function creep, and loss of public trust.
How will Abu Dhabi govern data residency, cross-border processing, and third-party platform dependencies?	Because many wearable ecosystems are operated by global technology companies, the regulator must decide which data must remain in-country, where processing can occur outside the UAE, and what technical safeguards are required.
How will governance evolve as wearable data is linked with genomics, diagnostics, prescriptions, and AI-driven decision support?	Combining wearable data with other sensitive data sets creates a much greater governance burden, and it's critical to outline the required oversight mechanisms.

[26]Metwally, A. A., Heydari, A. A., McDuff, D., Solot, A., Esmaeilpour, Z., Faranesh, A. Z., Zhou, M., Narayanswamy, G., Xu, M. A., Liu, X., Yang, Y., Savage, D. B., Malhotra, M., Heneghan, C., Patel, S., Speed, C., & Prieto, J. L. (2026). Insulin resistance prediction from wearables and routine blood biomarkers. Nature, 652, 451–461. https://doi.org/10.1038/s41586-026-10179-2
[27]World Health Organisation. (2025). Global strategy on digital health 2020–2027. Geneva: World Health Organisation.

Pillar 3: Regulatory and Policy Enablement

As wearable technologies play a growing role in clinical pathways, regulatory frameworks must evolve to provide clear guidance that protects patient safety while enabling innovation. Oversight should distinguish between consumer wellness devices and medical-grade wearables, with the latter requiring stronger evidence, validation, and supervision. The policy should set clear requirements for clinical validation, device classification, artificial intelligence governance, cybersecurity, and post-market surveillance to ensure these technologies meet appropriate standards for safety, quality, reliability, and clinical effectiveness before use in healthcare settings. A well-defined regulatory environment also gives healthcare providers, developers, and manufacturers greater clarity on compliance, evidence, and performance expectations, reducing uncertainty and supporting responsible, consistent adoption across the health system.

Highlighted below are critical questions that should be addressed to enable sustainable adoption and scale-up of wearables within wider health infrastructure.

Policy Question	Key Considerations
How should wearables be classified, and what regulatory obligations should apply to each category?	Classification determines the evidence threshold, approval pathway, oversight intensity, and liability expectations.
What evidence and validation standards should be required before wearable use cases are approved for scale?	Determine what constitutes sufficient proof for different types of wearable-enabled interventions.
Who is accountable when wearable data or insights are wrong, incomplete, or misused?	Define accountability across manufacturers, healthcare providers, and platform operators.
What market access and operating rules should govern participation in the wearable ecosystem?	Policy conditions, vendors, platforms, and providers must meet to participate in priority use cases and population infrastructure.
How should regulation evolve to enable future AI, precision health, and secondary use without losing trust?	Design policies not only for today's pilots, but for tomorrow's higher-risk applications.

Pillar 4: Consumer and Clinical Adoption

The successful adoption of wearable technologies depends on both consumer engagement and clinical acceptance. Consumers are more likely to use wearable-enabled healthcare services when they understand the benefits, trust that their personal data will be protected, and receive useful insights that encourage healthier behaviours, making digital health literacy and public awareness important enablers of sustained engagement. At the same time, healthcare professionals must have confidence in the reliability, accuracy, and clinical relevance of wearable-generated data, supported by appropriate training, workflow integration, and evidence of improved health outcomes. As a result, effective implementation strategies should address the needs of both groups through targeted education, change management, and user-centred service design to support broad and lasting adoption across the health and wellbeing ecosystem.[27]

Highlighted below are critical questions that should be addressed to integrate wearables into mainstream population health and care delivery.

Policy Question	Key Considerations
For which priority use cases will wearables deliver enough value to change consumer and clinician behaviour?	Identifying the use cases where wearables solve a real problem for both individuals and providers, rather than promoting wearables as a generic innovation agenda.
What evidence will be sufficient to convince clinicians and consumers that wearables are worth using?	Determine and curate pilots to develop evidence needed to prove that wearables improve adherence, prevention, patient engagement, clinical outcomes, or service utilisation.
How can wearable use be integrated into clinical workflows without increasing burden on providers?	Define how wearable data will be filtered, summarised, and embedded into workflows in a way that is relevant and actionable.
What consumer experience model will make participation simple, trusted, and sustained over time?	End-to-end experience needed across onboarding, consent, device connection, feedback, nudges, and ongoing engagement.
What incentives and engagement mechanisms will drive sustained use among both consumers and providers?	Consider mechanisms/incentives that will help people keep using wearables and motivate providers to incorporate them into routine practice.

[27]World Health Organisation. (2025). Global strategy on digital health 2020–2027. Geneva: World Health Organisation.

Pillar 5: Ecosystem Partnerships and Innovation

The successful integration of wearable technologies depends on strong collaboration across the public and private sectors to build a sustainable digital health ecosystem. Governments, healthcare providers, payers, regulators, academic institutions, technology companies, device manufacturers, and research organisations all play important roles in developing, evaluating, implementing, and improving wearable-enabled healthcare solutions. These partnerships help advance interoperability standards, clinical validation, pilot programmes, regulatory guidance, and innovation initiatives, while also supporting knowledge sharing and coordinated investment in research and digital infrastructure. By enabling a more coordinated approach, such collaboration helps balance innovation with patient safety, strengthens healthcare system resilience, and allows wearable technologies to make a meaningful contribution to preventive care, chronic disease management, and better population health outcomes.[26,27]

Highlighted below are critical questions that should be addressed to convene the right ecosystem and create a controlled pathway for innovation that serves Abu Dhabi's health priorities.

Policy Question	Key Considerations
Which ecosystem partners are essential, and what role should each play in the wearable model?	Define the target partnership model across device manufacturers, digital health platforms, providers, payers, public health entities, academic institutions, and research organisations.
How should the regulator engage global technology companies while preserving control and strategic flexibility?	Determine partnership terms, technical requirements, and governance conditions needed to scale and transform.
How can the regulator create an innovation pathway that attracts innovators while maintaining safety and trust?	Mechanisms to assess, admit, and monitor innovators into the Abu Dhabi health ecosystem.
What incentives will encourage ecosystem partners to invest in wearable-enabled models at scale?	Develop a viable value proposition for partners to actively engage in and support emirate-wide transformation.
How will the regulator enable an innovation ecosystem that supports future precision health and research use cases?	Identify ways to evolve existing partnerships into a broader innovation ecosystem with universities, biotech players, public health institutions, and digital platforms.

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Roadmap to Realisation

The proposed framework provides the strategic foundation for integrating wearable and consumer health technologies into the wider health and wellbeing ecosystem. To translate this framework into measurable outcomes, each of the five strategic pillars is organised into a structured roadmap across four workstreams and three time horizons to show what needs to be delivered and when it should be prioritised.

The workstreams represent the core capability areas required to enable a trusted, scalable, and future-ready wearable health ecosystem and the time horizons reflect the expected sequencing of initiatives.

The 'Build' phase focuses on establishing the foundational enablers required for safe adoption, including policy clarity, technical standards, early pilots, and stakeholder alignment.

The 'Accelerate' phase focuses on moving from isolated initiatives to repeatable operating models, embedding capabilities into workflows, and expanding adoption across the ecosystem.

The 'Transform' phase reflects the longer-term shift toward precision population health and precision care, in which wearable data becomes a routine and trusted input for prevention, clinical decision-making, and population health management.

Disclaimer: The roadmap is indicative and includes illustrative policy options and initiatives that are directional in nature only, subject to applicable laws, mandates, approvals, consultations, procurement requirements, and available resources, and should not be interpreted as prescriptive or binding on the DOH - AD.

Phases and Initiative Options

Workstreams	Build (0-2 Years) →	Accelerate (3-5 Years) →	Transform (5-10 Years)
I. Regulatory, Policy, and Trust Enablement	• Priority options could focus on conducting an emirate-wide consultation exercise across individuals, providers, and payers to surface policy trade-offs, e.g., centralisation vs decentralisation, degree of regulation, acceptable use of data, etc. • DOH - AD could establish a dedicated wearable health regulatory unit to oversee policy, approvals, monitoring, and cross-sector coordination. • DOH - AD may wish to set out a wearable policy framework covering device categories/classification system, intended-use tiers, evidence expectations, consent and operating requirements. • A foundational step could be to develop a clear typology of wearables by use case, distinguishing between wellness, monitoring, and clinical applications. • Another avenue for consideration is the introduction of a regulatory sandbox and validation pathway for priority use cases and qualified innovators.	• As the market matures, the policy makers may define vendor participation rules for the wearable ecosystem, including technical compliance, data handling, security, and audit obligations. • Consideration could be given to operationalising periodic review of validation standards based on real-world evidence from scaled deployments. • Introduce compliance monitoring and incident reporting framework.	• For advanced use cases, DOH – AD could explore adaptive regulation for AI-enabled decision support, behavioural nudges, and risk stratification models using wearable inputs. • Put in place oversight mechanisms for linked-data use cases involving wearables, genomics, diagnostics, prescriptions, and research datasets. • Position Abu Dhabi as a regional & global benchmark through internationally aligned assurance, transparency, and trust frameworks.
II. Data, Interoperability, and Digital Infrastructure	• DOH - AD could define priority data domains and clinically relevant data elements for initial use cases such as diabetes, obesity, maternity, fall-risk, etc. • Stakeholders may wish to refine interoperability standards for wearable integration. • It could be helpful to define minimum accuracy, validation, and standardisation requirements for the use of wearable data. • Policymakers could establish UAE data residency and cross-border processing rules for wearable-derived clinical insights and regulator-managed algorithms.	• Opportunity to expand direct integrations with the major device ecosystem. • Could be complemented by defining initial integration points between Sahatna, Malaffi, and provider systems. • DOH – AD could also introduce an access model so authorised users can retrieve verified, relevant, and timely data at the right level of detail. • May seek to embed wearable dashboards, alerts, and summaries into provider workflows for priority pathways. • Enhance Sahatna's role as a digital front door for consent, onboarding, device connection, and consumer feedback loops.	• DOH – AD could enable longitudinal data integration across wearables, clinical records, lifestyle data, diagnostics, e-prescriptions, and approved genomics datasets. • Support population-level risk stratification and personalised prevention through secure analytics environments and governed data linkage. • Aim to operationalize AI-enabled decision support and behavioural nudge systems with transparent governance and auditability.

Phases and Initiative Options

Workstreams	Build (0-2 Years) →	Accelerate (3-5 Years) →	Transform (5-10 Years)
III. Clinical, Consumer, and Value Realisation	• DOH - AD could prioritise 3–5 high-value use cases aligned to population health and health priorities, such as diabetes, obesity, maternity, elderly fall-risk, and preventive wellness. • DOH - AD could explore designing the end-to-end consumer journey across enrolment, consent, device connection, feedback, nudges, and ongoing participation. • Refine and expand pilots with clear success metrics. • Publish pilot evidence with outcomes.	• Providers may choose to embed wearable-enabled wellness dashboards and monitoring views into routine provider workflows for selected health priorities. • Consumer uptake could be further supported through mechanisms such as nudges, gamification, and prevention incentives to improve sustained use.	• Wearable insights may become embedded in preventive care, remote monitoring, and selected chronic disease pathways as standard practice. • Personalised prevention programmes may increasingly use longitudinal data to trigger timely interventions for high-risk populations.
IV. Ecosystem Partnerships, Innovation, and Precision Health	• DOH - AD could aim to define the target ecosystem model and clarify stakeholder roles. • May be supported by setting partnership principles for engaging global technology companies. • Policymakers may aim to initiate research collaborations to derive insights from the integration of wearable, health, and clinical data. • Stakeholders could consider developing criteria for admitting innovators based on clinical relevance, safety, interoperability, data handling, and local value contribution. • Aim to establish Abu Dhabi as a regional innovation hub for trusted wearable-enabled health and wellbeing and precision population health.	• Stakeholders may consider incentive models for ecosystem partners to invest in wearable-enabled care and prevention pathways. • This could be reinforced by strengthening partnerships with universities and research organisations to generate local evidence.	• Research and commercial partnerships may expand into advanced use cases involving AI, precision prevention, multi-omic integration, etc. • Ultimately, Abu Dhabi may seek to establish itself as a reference market for safe, interoperable, and outcome-driven wearable adoption.

Conclusion

The Path Forward for DOH – AD

The priority should be to move wearables from fragmented pilots into a trusted, scaled public health capability. In Abu Dhabi's context, that means establishing clear rules on which wearable data can be used and for what purpose, while embedding interoperability, privacy, cybersecurity, and data residency requirements into the architecture from the outset.

The most practical path forward is to focus first on a small number of high-value use cases, such as diabetes, obesity, elderly fall-risk, and preventive wellness, and integrate them directly into platforms such as Sahatna, Malaffi, and provider workflows so that wearable data becomes actionable for both individuals and clinicians rather than remaining trapped in consumer apps.

In the emirate, where the ambition extends toward precision health and longevity, the DOH – AD can play a market-shaping role by convening providers, payers, technology companies, and researchers around common standards and shared outcomes, while also ensuring that incentives, consumer consent journeys, and clinician workflows are designed to support long-term engagement.

Key Lessons to Share with the World

The Abu Dhabi experience suggests that successful wearable adoption is not primarily a device strategy; it is a health system integration strategy. The key lesson for other markets is that wearables create public value only when they are connected to trusted digital infrastructure, clear governance, priority care pathways, and sustained engagement models that make participation simple and worthwhile.

In this respect, the emirate offers a compelling model that aspires to combine regulatory ambition with health platforms, align wearables with prevention and longevity goals, and treat consumer-generated data as a strategic input for personalised and population health management rather than as a standalone wellness trend.

What makes the emirate distinctive is not simply its high level of digital readiness, but its ability to connect consumer and wearable data with broader system infrastructure to curate Health Age, e-prescriptions, and precision health initiatives. This shows that countries can move beyond treating wearables as lifestyle tools and instead position them as practical enablers of prevention, early intervention, and more personalised care at scale.

At the same time, the experience also highlights that scaling wearable-enabled health and wellbeing requires more than technology. Clinical value depends on interoperability, data validation, workflow integration, privacy protections, local data governance, and sustained user engagement from both individuals and clinicians. The broader lesson is that successful wearable strategies must be built into a connected health and wellbeing ecosystem, where regulators, providers, payers, and technology players align on trust, standardisation, and meaningful outcomes. In that sense, Abu Dhabi strongly demonstrates that wearables are most powerful not as standalone innovations, but as one component of a wider shift toward proactive, preventive, and data-driven healthcare.

H.E. Dr Noura Khamis Al Ghaithi, Undersecretary of the Department of Health – Abu Dhabi, said:

"Wearable technologies are giving us a more continuous picture of our health and creating new opportunities to identify risk earlier. Beyond individual data points, their largely untapped value lies in connecting those insights with the health system, to support earlier intervention and help people stay healthier for longer."

"In Abu Dhabi, we have already built strong digital health foundations, and our focus is to ensure that new sources of health insight can be translated into meaningful action. Through this whitepaper, Future Health – A Global Initiative by Abu Dhabi is setting out a practical framework for how wearable technologies can support that shift at scale," she added.

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Future Health is a year-round platform for global collaboration and transformative health innovation, held under the patronage of His Highness Sheikh Khaled bin Mohamed bin Zayed Al Nahyan, Crown Prince of Abu Dhabi and Chairman of the Abu Dhabi Executive Council.

Bringing together health researchers, policymakers, business leaders, investors and entrepreneurs from across disciplines and geographies, Future Health drives collective action to strengthen health systems and unlock longer, healthier lives for all.

Through a year-round programme of research insights, publications, impact initiatives, Challenges, R&D funding, and cross-sector convenings, Future Health advances progress across four focus areas: longevity and precision medicine, health systems and sustainability, digital health and AI, and investment in life sciences.

Future Health is curated and convened by the Department of Health – Abu Dhabi and its Founding Partners M42, PureHealth, the Institute for Healthier Living Abu Dhabi and Mubadala Bio. Mediclinic Middle East serves as a Strategic Partner, and Burjeel Holdings as an Associate Partner.

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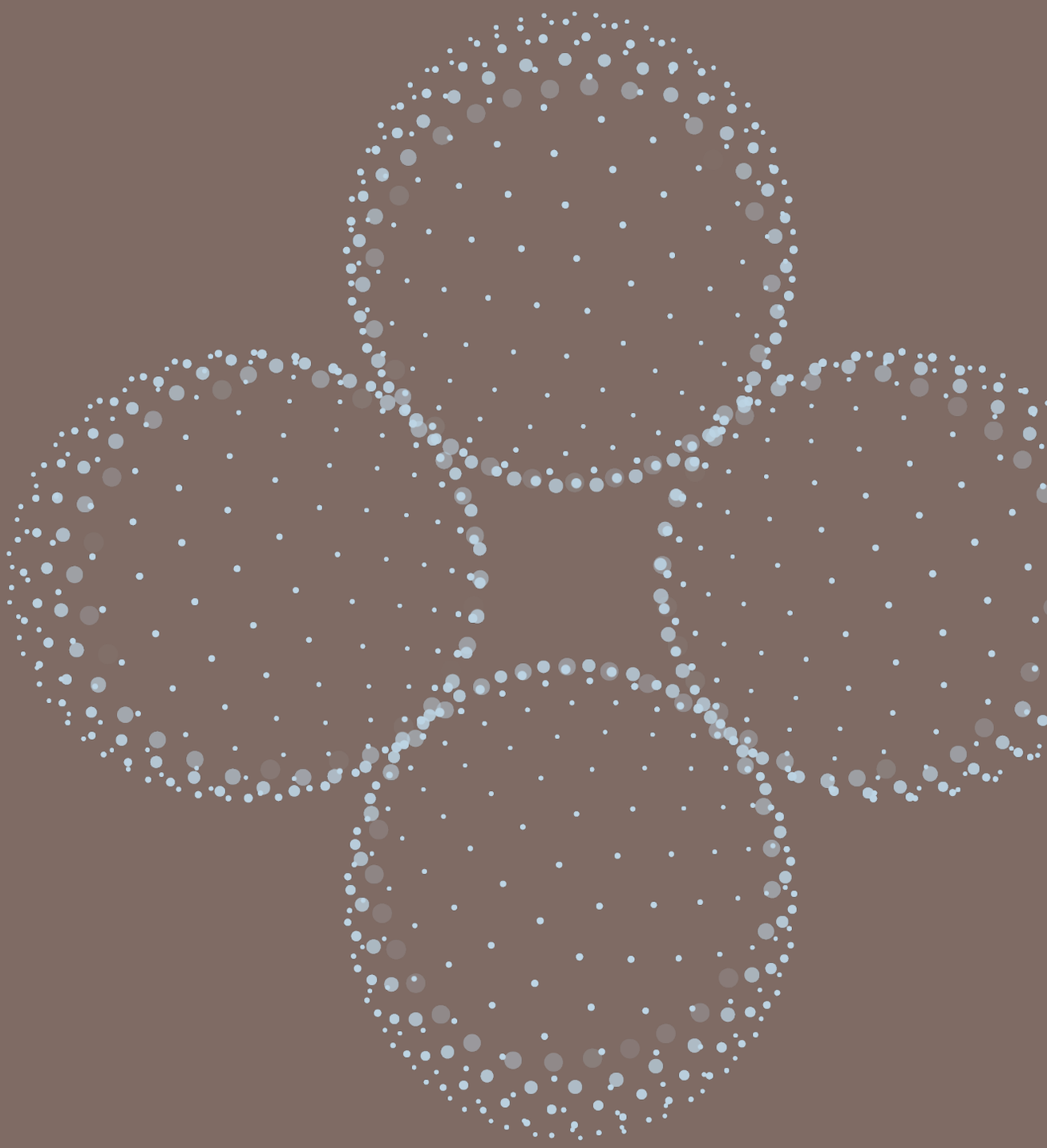

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