

# The Future of Medical Practice

## INTEGRATING ARTIFICIAL INTELLIGENCE AND PRECISION MEDICINE IN HEALTHCARE



## Introduction

As the healthcare landscape undergoes profound transformation, driven by technological advancements and the rise of precision medicine, medical professionals are encountering both challenges and opportunities. SSCG Media Group's 2024 MAP MD™ online survey, which questioned 755 medical professionals from a broad spectrum of specialties, offers a comprehensive look into how Artificial Intelligence (AI), precision medicine and the role of Advanced Practice Providers (APPs) are reshaping medical practices. The findings explore these key trends, providing a blueprint for healthcare organizations to adapt to these changes, improve patient outcomes, enhance care coordination, and address health disparities.

## Background

The increasing complexity of healthcare has ushered in a shift toward more personalized, data-driven approaches. Technologies like AI and precision medicine hold promise in offering tailored solutions, yet adoption has been slow. Medical professionals acknowledge the potential but face barriers to integration. Furthermore, healthcare disparities, particularly across socioeconomic and geographic lines, persist as a major challenge. Without addressing these, the full benefits of technological advancements cannot be realized.

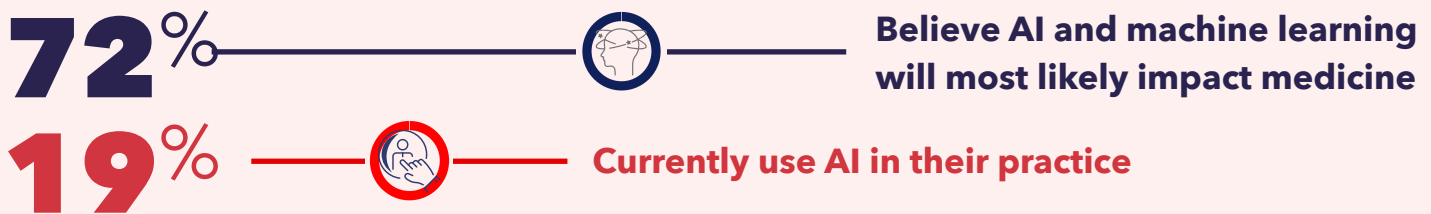
## Potential Solutions

AI and precision medicine offer paradigm-shifting potential for the future of healthcare. AI is poised to revolutionize diagnostics, treatment planning, and administrative processes. Similarly, precision medicine's ability to deliver individualized care based on genetic profiles can significantly improve outcomes, especially in fields like oncology. Leveraging advanced practice providers in this technological shift also ensures that healthcare teams can operate efficiently while enhancing the quality of care delivered.

# The Promise and Reality of Artificial Intelligence in Healthcare

Artificial Intelligence has become an integral part of modern healthcare, recognized as a groundbreaking force with applications including improved diagnosis and personalized treatment plans, drug discovery and development, administrative efficiency, patient monitoring & care and surgical assistance. The analysis revealed that a substantial number of medical professionals believe AI assisted healthcare will significantly impact the way medical diagnoses are made.

According to the data, 72% of physicians identify AI and machine learning as the emerging technologies most likely to impact the field. Despite this recognition, only 19% of physicians currently use AI in their practice. AI's potential in the healthcare industry offers solutions to complex challenges, which spans areas including diagnostic accuracy, patient data analysis, administrative automation, clinical decision support, drug discovery & development, and surgical assistance. However, challenges such as education, integration, and trust in AI must be addressed to ensure wider adoption.

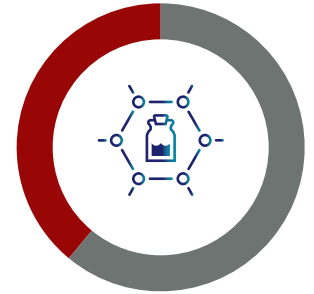


This gap between recognition and implementation suggests barriers to adoption, such as concerns over accuracy, integration challenges, and the need for more education on AI applications. Where AI is currently being used, it primarily assists in diagnostic processes, patient data analysis, and treatment planning. The potential for AI to streamline administrative duties, enhance diagnostic accuracy, and personalize treatment plans is significant, yet its full integration into everyday practice remains limited. Addressing these barriers is crucial for AI to achieve its potential in improving healthcare outcomes and efficiency.

## Precision Medicine: Current Use and Future Potential

Precision medicine represents a shift from a one-size-fits-all approach to healthcare towards more individualized treatment based on a patient's genetic makeup, making it another area poised for growth. The findings indicate that:

- While 61% of physicians are familiar with the concept, only 32% currently use precision medicine approaches. The most employed techniques include biomarker testing (49%) and genetic testing (35%), which are vital for tailoring treatments to individual patient profiles. Many respondents reported using precision medicine approaches, particularly in oncology, where tailored treatment plans based on genetic profiles are becoming standard.



**61%**

**OF PHYSICIANS**

**Are familiar with the concept of precision medicine**

- Of the respondents who currently use precision medicine, most believe it has improved patient outcomes, particularly in terms of treatment efficacy and reducing adverse reactions. Additionally, respondents identified several areas where precision medicine could be beneficial, including targeted therapies, immunotherapy, and data integration for personalized care.
- The primary challenges in adopting precision medicine include limited access to genetic testing, high costs, and a lack of education and resources for healthcare providers.

The integration of AI and precision medicine is set to redefine the future of medical practice. The data from our analysis suggest that while these technologies offer immense potential, their successful implementation will require overcoming significant challenges.

## Advanced Practitioners: Key to Tech Integration

Advanced practice providers play a pivotal role in the integration of healthcare technology and precision medicine. These individuals, who work alongside physicians and nurses, bring a unique set of skills and knowledge that are essential for the successful implementation of advanced medical tools and techniques.

According to the data, a significant shift in healthcare delivery is the increased reliance on Nurse Practitioners (NPs), Physician Assistants (PAs), and other healthcare professionals such as nurse and patient navigators. In fact, 58% of physicians report utilizing NPs and PAs in their practices, while 28% and 21% utilize nurse navigators and patient navigators, respectively.



**58%**

**OF PHYSICIANS**

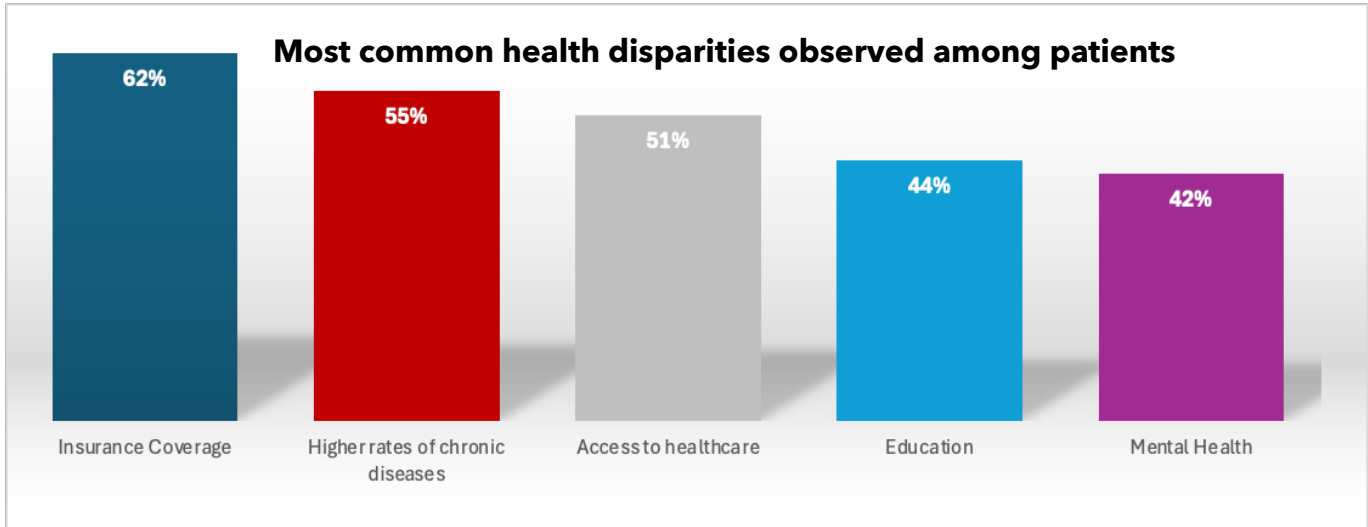
**Utilize NPs and PAs in their practices**

These professionals are not merely supporting roles but are integral to patient care, often interacting with patients as frequently as the physicians themselves. For example, 49% of respondents indicated that patients always or often see these professionals, and 42% said sometimes.

Advanced practice providers are often involved in patient management tasks, such as conducting routine medical screenings, administering treatments, and providing health education. This delegation allows doctors to focus on more complex cases such as rare diseases, metabolic disorders, severe injuries, congenital anomalies and age-related conditions, while still ensuring that patients receive continuous and consistent care. This trend highlights the importance of a collaborative approach to healthcare, where tasks are shared among multidisciplinary team to manage patient care more effectively.

# Addressing Health Disparities: Challenges and Opportunities

Health disparities remain a significant challenge in healthcare, with physicians observing higher rates of chronic diseases, limited access to healthcare, and mental health issues among their patients. Common disparities are related to race, socioeconomic status, and geographic location.



The findings identified the challenges and potential strategies for improvement in addressing health disparities. Providing financial support for research and community programs, development of patient-centric programs, including patient education materials, and advocating for policy changes have been identified as the primary resources that would be most helpful in addressing health disparities. Increasing access to resources, providing cultural competency training, and utilizing technology to reach underserved populations were also noted as essential for reducing disparities and ensuring that all patients receive equitable care.

## Top 3 Ways to Address Health Disparities

**54%**

**Provide financial support for research & community programs**

**50%**

**Develop patient-centric programs**

**41%**

**Advocate for policy changes**

Artificial intelligence can play a significant role in helping HCPs address health disparities, by using AI for language translation, remote consultations, health education and efficient resource allocation.

## Conclusion

The analysis of our study underscores the evolving nature of healthcare, where technology, precision medicine, and advanced practice providers play increasingly important roles. To capitalize on these trends, healthcare practices must embrace a collaborative approach, leveraging the skills of a diverse team while integrating new technologies and personalized medicine approaches.

Addressing the barriers to AI adoption, enhancing precision medicine resources, and tackling health disparities are critical steps toward improving patient outcomes and the overall efficiency of healthcare delivery. By staying ahead of these trends, healthcare providers can ensure they are equipped to meet the challenges of the future and provide the highest standard of care to their patients. As such, healthcare marketers must:

- **Empower HCPs to Adopt AI Driven Solutions:** Invest in training and resources to integrate AI into everyday practice, focusing on areas where it can most effectively enhance care.
- **Expand Education Regarding Advancements in Precision Medicine:** Provide financial support, education, and tools to incorporate precision medicine into routine care, making it accessible and beneficial for all patients.
- **Leverage Advanced Practitioners and other HCPs as part of the marketing strategy:** Fully utilize the expertise of NPs, PAs, and other healthcare professionals to manage patient care more effectively.
- **Address Health Disparities:** Implement strategies to overcome barriers in healthcare access, including cultural competency training and partnerships with community organizations.

By implementing these recommendations, healthcare providers can not only navigate the evolving complexities of modern practice but also lead the way in delivering innovative, patient-centered care.

## About MAP MD™

**MAP MD™** is a proprietary database of healthcare professionals and patients, developed by SSCG Media Group, offering a unique perspective on the healthcare landscape. We leverage this database to provide invaluable insights into media consumption habits and creative messaging preferences within the healthcare industry. Our data empowers pharmaceutical clients to make informed decisions regarding their media investments, helps develop targeted messaging strategies, improve campaign effectiveness and ultimately driver better results.

## About SSCG Media Group

As the Media Center of Excellence for Omnicom Health Group, one of largest and most diversified global healthcare advertising and communications networks in the world, SSCG Media Group is dedicated to building connections between healthcare providers (HCPs), patients, and important life-science brands by pioneering innovative media strategies that encourage meaningful conversations and drive better patient outcomes. SSCG's core media service offerings include Audience Development, Media Strategy, Planning, Buying of Non-Personal Promotion (NPP), Research & Strategic Insights and Data & Analytics. As part of OHG's Best of Health™ network, SSCG has access to talent, tools and technology that accelerates brand growth for Pharmaceutical clients.



**Thank you for exploring the future of medical practice with us.**

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