



INTERNATIONAL
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HEALTH PLANS

The opportunity for Artificial Intelligence in health insurance

From cost savings to transforming health: how AI, ML and LLMs are changing the health insurance landscape

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The opportunity for Artificial Intelligence in health insurance

Executive Summary

The International Federation of Health Plans (iFHP) has spent the past few months speaking with its members across the world about the opportunity for AI in health insurance and its potential transformative impact. This paper summarises these conversations and starts to answer the question, what is the opportunity for AI in health insurance?

Certainly, most members agree that AI is already changing the health insurance industry. New AI-powered service channels are making it easier for customers to interact with their insurers, and AI-driven analytics are helping insurers to make better decisions about pricing and risk.

The more exciting applications of AI in health insurance can be grouped into three main categories:

- More powerful data analysis: AI can help insurers to analyse vastly more data more quickly and efficiently, which can lead to more accurate pricing and risk models.
- Real-time delivery of services: AI can be used to automate time-consuming processes, such as underwriting, which can free up staff to focus on more personalised customer service.
- Highly personalised services: AI can be used to create tailored health plans and recommendations for each customer, based on their individual needs and preferences.

For successful AI adoption in the health insurance industry, several considerations need to be carefully evaluated:

- Improved data quality: AI models are only as good as the data they are trained on, so it is important for insurers to improve the quality of their data. Privacy is also a fundamental consideration.
- Engagement with regulators: As AI becomes more widespread, it is important for insurers to engage with regulators to ensure that AI is used in a responsible and ethical way, and regulation is implemented with their clear input.
- Collaboration at a system level: AI is a complex technology, so it is important for insurers to collaborate with each other and with other organisations, such as healthcare providers, to share knowledge and best practices, but also to take a system view that creates the most valuable data sets for training and using AI.

AI presents exciting opportunities for health insurance companies. From more powerful data analysis to real-time claims processing and personalised services, AI can drive cost savings, enhance operational efficiency, and improve customer experiences. As AI adoption matures, it will enable health insurers to move towards a proactive and personalised "health concierge" role, revolutionising the healthcare ecosystem and transforming the way health insurance and healthcare operate.

Finally, the paper proposes an AI Adoption Maturity Framework to serve as a roadmap for AI development in the health insurance sector. The framework focuses on unlocking innovative AI opportunities and the required non-tech changes. It categorises AI use cases based on assessment of Value/Impact and Readiness/Trust. Starting with cost-saving use cases, it progresses towards applications that transform the health and wellness of insured individuals and populations. Trust, especially among employees and customers, plays a crucial role in prioritising AI initiatives. The framework helps align an insurer's workforce, nurturing enthusiasm for AI's potential with increasing maturity levels.

Contents

Executive Summary	3
Contents.....	4
Introduction	5
Why AI, why now?.....	6
Opportunities for innovation	6
More powerful data analysis	6
Real-time claims processing, underwriting and pricing.....	8
Highly personalised services	8
Personalised treatments and wellness plans	9
The AI Adoption Maturity Framework in more detail	9
1/ Cost Savings.....	10
2/ Operating Efficiency	11
3/ Enhance Customer Experience.....	11
4/ Transform Health and Wellness.....	11
What's needed to maximise the impact of AI?.....	11
Improving data quality.....	11
Engage with an evolving regulatory environment	12
Collaboration within and between organisations	12
Concluding remarks	14
Contributors	15

Introduction

Before 30 November 2022, only a select few developers and committed Artificial Intelligence (AI) enthusiasts had heard of ChatGPT, OpenAI's now ubiquitous AI chatbot. Yet, in the few short months since its public release, ChatGPT and a host of similar 'generative' chatbots have democratised AI, helping it break out of its geeky 'data analytics' box and elbow its way into seemingly every business conversation, from the Boardroom to watercooler discussions. AI was a popular coffee-break topic during iFHP's CEO Forum earlier this year.

Like any new technology, the adoption of AI also has its risks. In May 2023, Samsung issued a ban on employee use of generative AI tools after sensitive company data was unintentionally leaked while using ChatGPT. The users didn't opt out of data sharing and the information became part of OpenAI's training data set. We'll talk more about data privacy later.

To help navigate the opportunities (and the risks) afforded by AI, iFHP took inspiration from its members' own planned and actual deployments of AI within their businesses and developed an AI Adoption Maturity Framework to serve as a roadmap for the adoption of AI that focuses on the development of both value and trust in the technology.

The framework operates as a two-by-two matrix, featuring value/impact on the Y-axis and customer and employee readiness/trust on the X-axis. The four phases of adoption maturity are as follows:

1. **Cost Savings:** AI adoption is driven and rationalised by cost savings. Strategic focus is internal.
2. **Operating Efficiency:** the primary goal for AI is to streamline processes and reallocate employee time to activities that add more value for the organisation. Strategic focus is internal and transformational.
3. **Enhance Customer Experience:** the guiding star for AI adoption is improving customer experience and strengthening relationships with members/customers. Strategic focus shifts to be external.
4. **Transform health and wellness:** AI becomes an agent of radical change in relationships between payers, providers and patients and is leveraged to achieve better health across the human lifetime. Strategic focus is external and transformational.

The entry-point for AI adoption is typically motivated by cost savings. Reducing costs is the simplest business case for AI, but it is a narrow view in terms of creating value. As Professor Sneha Khemka observes, "it's a valid concern that AI may not end up being significantly cheaper for an organisation. As we get to the deployment phase of AI adoption, I can see significant costs coming. If we look at Software as a Service, software licensing started small and has since become one of the biggest lines on the P&L."

Reaching the highest level of AI adoption maturity (transforming health and wellness) will require new partnerships across the healthcare eco-system as well as significant internal shifts within organisations.

This report outlines some of the more innovative opportunities for AI for health insurance across all four quadrants of the framework, assembled from interviews with iFHP members. These opportunities fall broadly into three categories:

1. More powerful data analytics
2. Real-time claims processing, underwriting and pricing
3. Highly personalised services

More powerful data analytics is the foundation of all AI use cases and things get really interesting when that is combined with medical or business expertise to address a known pain point. Achieving greater AI adoption maturity (to therefore create more value) demands greater collaboration within and beyond the organisation.

Highly personalised services, for example, will depend on using AI to glean insights from multiple streams of data that are gathered and owned by many different stakeholders. Adoption of new technology is always a lot more about the non-tech (that is, your people and your processes) so we also look at what needs to be in place to realise the promise of AI. The key themes are:

1. Improving data quality
2. Engage in an evolving regulatory environment
3. Collaboration within and between organisations

But first, let's take a moment to understand why AI has become so talked about in today's business world once again.

Why AI, why now?

AI has been at the heart of data modelling and analytics for some years, however until recently it has been a predictive tool used primarily with large numerical data sets. What makes AI-powered chatbots like Bard, ChatGPT or WriteSonic exciting is that they are driven by a new breed of Large Language Models (LLMs). As John Smeed, Principal at actuarial specialists Finity Consulting explains: “AI is not new. It has sat in a geeky tech space and hasn’t been cool. AI-powered chatbots have given AI a user-friendly interface and a way to express the output in a way that everyone understands.”

It’s useful to clarify the terms. AI, Machine Learning (ML) and Large Language Models (LLMs) are related, but not interchangeable. AI or Artificial Intelligence is an umbrella term. ML and LLMs are specific AI methodologies and there are many variants of each. For example, ChatGPT uses an LLM called Generative Pre-trained Transformer; Bard uses two LLMs: Language Model for Dialogue Applications (LaMDA) and Pathways Language Model (PaLM). Health insurers have been using ML algorithms for pricing and cost modelling for many years. The new kids on the block, LLMs, operate using natural language processing to (i) respond to conversational prompts from humans and (ii) to generate human-like text.

Because LLMs respond to conversational prompts, they’re easy to use. The new generative AI tools can create essays, software code, artwork, photographs, videos, slide shows and more, however a study by the US-based National Bureau of Economic Research shows the potential of AI for increasing operational efficiency. Its research suggested giving customer support agents access to a generative AI-based conversational assistant can increase productivity by 14 percent, on average.

Generative AI is already changing how we’re thinking about our businesses yet we are only just beginning to understand what we can do with it. Most commentators are rightly wary of being distracted by applications of the technology that hold little true value. However, in Khemka’s view, “usually when these things are appearing so regularly in the news and social media, there is a lot of hype and not much reality. In this case there is a lot of reality and AI adoption really does represent a significant shift in how health insurance and healthcare is going to operate.”

Opportunities for innovation

The most exciting use cases for health insurance being considered by the members we spoke to fall broadly under three main headings:

1. more powerful data analysis: increasing speed and volume of data analysis for more granular modelling, while also reducing costs;
2. real-time delivery of traditionally time-intensive processes (for example, real-time or close to real-time underwriting);
3. highly personalised services based on member preferences and wellness needs.

More powerful data analysis

We already know there is a huge amount of under-leveraged data associated with every insurance claim and this is an obvious target for AI. Referral letters, medical notes, test results and, in fact, any free-text fields are largely inaccessible to scaled numerical data analysis. With the advent of Large Language Models (LLMs), free text and non-number strings can now potentially be ingested with ease.

At the level of cost savings, AI is already capable of sifting digitised text and producing a summary or identifying relevant key-words. Basic ‘ambient AI’ applications that work in the background to pick up data from existing records and deliver them to a report or into another data system are already here. That’s useful, but how can AI be used even more impactfully?

Arun Thiyagarajan, Global Healthcare Transformation Director at Bupa is enthusiastic about the emerging potential for AI in healthcare. “Although it is still in the very early stages when it comes to its clinical application, we are seeing promise in how it can deliver speedy diagnostics based on its rapid interpretation of reams of patient data,” he observes. “With a number of useful healthcare applications already in progress, we believe AI has the potential to evolve into a

useful tool that will speed up triage. This in turn will enable all clinicians to spend more time with their patients while adopting a more personalised approach to the care plans they offer them.”

John McPherson, Chief Technology Officer at New Zealand’s UniMed, agrees there is more to come. Existing tools, such as ChatGPT, he says, “are aware of a lot of content, but they have no context beyond what you include in your prompt. What’s coming that will have significantly more organisational value is ‘Context-Aware AI’. This is AI that has been created within and for our organisation, so it has contextual information relevant to what we’re trying to achieve.”

Large technology corporations are already developing the next step: context-aware AI applications running algorithms designed for a specific organisation. These context-specific deployments can accelerate operational efficiency by doing, for example, up to 80% of the work of creating a report, a slide show or writing up consultation notes. The remaining 20% can be completed and checked by a human who is now able to use more of their time on those tasks that need a human perspective, like management and leadership activities, building partnerships and reviewing complex cases. In March 2023, as an example of what is likely to become commonplace, a big four consulting firm deployed AI assistants to support 4,000 of its lawyers with contract analysis and regulatory compliance work, among other tasks.

Google’s Med-PaLM 2 shows us that automated clinical decision making is also coming closer: the tool achieves an accuracy of 86.5% on medical exam questions. This, and similar models, could significantly speed up the case review process. Where large clinical teams are currently needed, AI can review vast archives of past treatment notes along with data about the specific individual, cross check against the insurer’s own rules engine and provide a provisional clinical or claims decision. This would use much less clinician time and shorten waiting periods.

AI-powered triage using voice chat-bots is already being used by iFHP’s members, having been part of a drive for more telehealth solutions during the pandemic. Medibank’s COVID Care at Home programme (delivered jointly with Calvary) supported local health authorities to manage COVID cases across the country. In Queensland, a voice-based AI assistant was deployed to help assess risk factors and the level of care required, and connect people to the most appropriate care pathway. AI helped enable more people to be triaged and assisted when they most needed it. Plus, triage was done remotely, meaning fewer people needed to travel to a clinic, reducing the risk of spreading COVID-19.

Where digital imaging data is already acquired or can easily be captured using a smartphone, there is a significant opportunity to use AI for faster diagnosis, reducing waiting times and improving health outcomes. UniMed acknowledges that skin cancer is a particular risk for its customers due to New Zealand’s high UV exposure. Mole mapping services already utilise digital imaging to enable remote analysis by leveraging AI assistance to drive greater efficiency and thereby allow more cases to be assessed in a shorter period of time. CTO, John McPherson and his team are watching with a keen eye for anything that allows these services to be accessible to more people including advances in AI for skin analytics and other emerging applications of this technology.

They may not need to look far. Customers insured with Bupa in the UK and Spain can access an AI-powered skin cancer diagnosis service, through Bupa’s partnership with Skin Analytics. Customers receive a kit through the mail which they use to take high resolutions photographs of their skin lesions and upload it via Bluea, Bupa’s digital innovation hub. Once uploaded, an AI-powered tool compares them with a database of millions of other images of lesions to check for signs of health issues. If an issue is suspected the customer will be connected with a health professional and the existing pathways for diagnosis are then followed. Results from UK trials are encouraging: of 10,000 lesions reviewed by Skin Analytics’ AI-tool, 98.7% of cancers were correctly diagnosed, including 100% of melanoma and squamous cell carcinoma.

In terms of AI adoption maturity, these use cases – and dozens like them in diverse areas such as mammography, physiotherapy and mental health – demonstrate clear potential for cost savings and improvements in operational efficiency. They are also edging towards enhancing the customer experience; reaching the higher-value stages of AI adoption maturity will require bringing data analysis into play with other AI use cases, including highly personalised treatments. Genomics data provide an excellent example: the processing power needed for genetic and genomic testing means high costs and low adoption. As AI algorithms are increasingly used to supplement manual analytics, both lead-times and costs will come down, opening the door to highly personalised treatment plans.

Real-time claims processing, underwriting and pricing

How quickly claims are settled can be the cause of a significant source of friction in the relationship between the payer and the provider or insured. As self-service rapidly becomes the norm in the retail market, consumers expect similar levels of speed, efficiency and control over other transactions in their lives. Healthcare is at risk of becoming a laggard.

Claims automation has created cost savings and improved operational efficiency for health plans around the world. Even bigger returns are available by using AI to deliver the right output or service to the right stakeholder at the right time, across the whole customer experience. The rewards will be fewer customer services enquiries, increased customer satisfaction and increased customer loyalty.

Peachy Health, a new entrant into the UK health insurance market, is finding new ways to use tech to bring better health plans to UK customers. Self-service is one area where AI can assist, and CEO, Amit Patel is interested in how intuitive and easy they can make it. “Can you get to the point where your customers no longer need to talk to you at all?” he wonders.

Moving beyond existing member services and into acquisition, AI can be used to create a product or policy recommendation engine that accepts conversational prompts. This can be driven by a customer service agent or, eventually, by customers themselves. By returning highly personalised recommendations, this will reduce or even eliminate the manual workload of matching products to customer needs in direct or indirect sales. Patel believes it will soon go further still: “Using AI and ML we can get to real-time, dynamic pricing which is updated every second, every day. How we want to enact and embed that [technology] is another question.”

AI can also empower a purposeful move away from traditional, fixed approaches to underwriting. By processing volumes of previous decision data, AI-powered underwriting tools can improve forecasting, leading to lower risk for the insurer and fairer pricing for the customer. Traditionally, changing underwriting rules has required a lot of time spent on analysis, reviewing past claims, risk ratings and member data. Using AI in real-time, insurers have significant potential to streamline operations, combining more question sets and data sources on shorter time-scales than before.

Patel shares his thoughts on AI's potential to leverage more data: “[At Peachy] we currently collect basic customer data like age and location, but we can imagine taking in many more data sources, for example data from wearables and social media. Insurers can use AI and ML to integrate and analyse all these data streams to help us price more efficiently, in real-time.”

Highly personalised services

Customers want on-boarding, claims support and healthcare services at the times, through the channels and in the ways that work best for their busy lives.

Offering greater personalisation across the customer journey is a way to attract new members and increase loyalty and affinity of existing members. It is also a way to make healthcare more inclusive as we move away from a ‘one-size-fits-all’ approach (as long we also as take care to examine our AI models for systemic bias).

Manually generated personalisation is expensive, but AI is now powerful and accessible enough to be used to intelligently automate processes. The lowest hanging fruit will be personalised customer service that is largely delivered by AI, but doesn't appear to be automated. Think of the website chat-bots already in use, but imagine they've been trained within the specific context of your organisation, your value proposition and your customers.

Payers can focus on cost-savings by streamlining call centre operations or hone operational efficiency by combining AI and human support to provide a faster, more responsive service, across more customer touch-points. In the foundational stages of iFHP's adoption framework, chatbot support is provided to customer service agents. A typical goal is for AI to answer 20-30% of member enquiries with multiple checkpoints built in with employees. Once this is working well and customer confidence grows in the technology, so organisations can start exposing customers to AI-powered experiences as they manage their health insurance, and ultimately their health overall. Organisations at this level of AI adoption maturity use real member queries and customer agent responses to train the model with the aim of eventually routing only the most complex scenarios to a human operator.

Looking further into the future, John Smeed of Finity Consulting turns back to the importance of context to speculate on how AI chat-bots could step into a customer's frame of reference. He asks: "What if a customer services 'bot' could communicate with me in my language, in my accent and talk to me as I'd expect a 58-year-old male to talk to me?"

Unlocking the relationship between insurer and customer is a worthy goal. At every level of adoption AI provides rewards in greater efficiency. However, as adoption matures and service becomes more personalised, greater trust, greater customer loyalty and greater health rewards also follow.

Personalised treatments and wellness plans

One of the biggest prizes for insurers (and for patients and providers too) will be the deployment of AI-driven personalisation as part of a toolkit for improving both individual and population health.

Chronic disease management – the largest single claims category for many payers – is a key use case. AI is already reducing analysis time (in comparison to sifting observational data) from weeks to days. Providers and payers – and even Governments (not least in Israel, but also in other countries) – are using AI to analyse large volumes of data about individuals and populations to identify those who are at most risk of developing diabetes. Information campaigns raise awareness, targeted at those individuals who are most at risk. And going one step further, AI can help create personalised nutrition plans to support wellbeing or make personalised drug recommendations based on insights gleaned from extensive data analysis.

As useful as these use cases are, we are currently only scratching the surface of the possibilities of personalised medicine in clinical practice. Using AI to analyse genomic data has the potential to create significant new business models; it's already bringing down lead times and costs of genomic sequencing (nudging into 'operational efficiency' in our adoption Framework). Similarly, significant potential exists for AI-enhanced drug discovery. Once fully harnessed, this will cut down the time required for drug development, while ushering in highly personalised treatments.

We've already witnessed the development of simple apps, like Sleep Reset, that track user habits and use these to provide health recommendations. AI will start to bring together many sources of data about the individual, their genetics, physiology, remote monitoring from wearables, self-reported habits and use them to model health trajectories (with the appropriate consent given by data subjects).

At the highest levels of AI adoption maturity, payers will have a data-driven capability to move away from a reactive, treatment-led approach into something more like a 'health concierge' role. Think Netflix: its recommendation engine categorises viewers into more than 2,000 'taste communities', which it then uses to suggest a new film or TV show that we may not have chosen for ourselves. A mature wellness algorithm that can make actionable suggestions by cross-referencing health data and behavioural data could identify which interventions will work well for each member, adding value for those individuals and the healthcare eco-system as a whole.

There are plenty of exciting opportunities for AI, but as we already know the path for implementing any new technology is not simple. Below we look more deeply at iFHP's framework for AI maturity which has been developed to help navigate the ocean of potential that comes with AI, ML and LLMs.

The AI Adoption Maturity Framework in more detail

The ability of payers to use AI to achieve their strategic goals depends on how well they can orientate themselves towards the big challenges and opportunities facing the health insurance sector as a whole.

At iFHP we aim to always keep a systems perspective in view. We continually ask how insurers can best operate to support the aims and aspirations of the health insurance sector and, ultimately, improve global health provision. Our rationale has always been that when we are successful, all boats will rise with the tide.

The AI Adoption Maturity Framework (**Figure 1**) was built based on discussions of the current and future potential of AI with iFHP's members. It charts a high-level roadmap for AI development in the health insurance sector, to assist with unlocking the most innovative opportunities presented by AI and the non-tech shifts required to realise them.

Arranged along the twin axes of Value/Impact and Readiness/Trust (of customers and employees), the framework sorts the entry level use cases for AI (focused on cost savings) through to those applications that will transform health and

wellness of insured individuals and populations as a whole. A natural bias towards an internal focus of AI deployment lies on the left-hand side of the framework, mirrored by a bias towards an external focus on the right.

Where the assessment of value and impact requires little explanation, the choice of readiness and trust is more interesting. However, it is clear from members that the level of trust in particular, both among employees and customers, is a critical factor for ordering AI based initiatives, and it is likely our members' staff especially will have a complex set of concerns, not least about the ethics of AI. The AI adoption maturity framework is useful for aligning any insurer's workforce around a common goal for AI and we anticipate the higher maturity levels will get more buy in and unlock more enthusiasm for the potential of AI from the workforce.

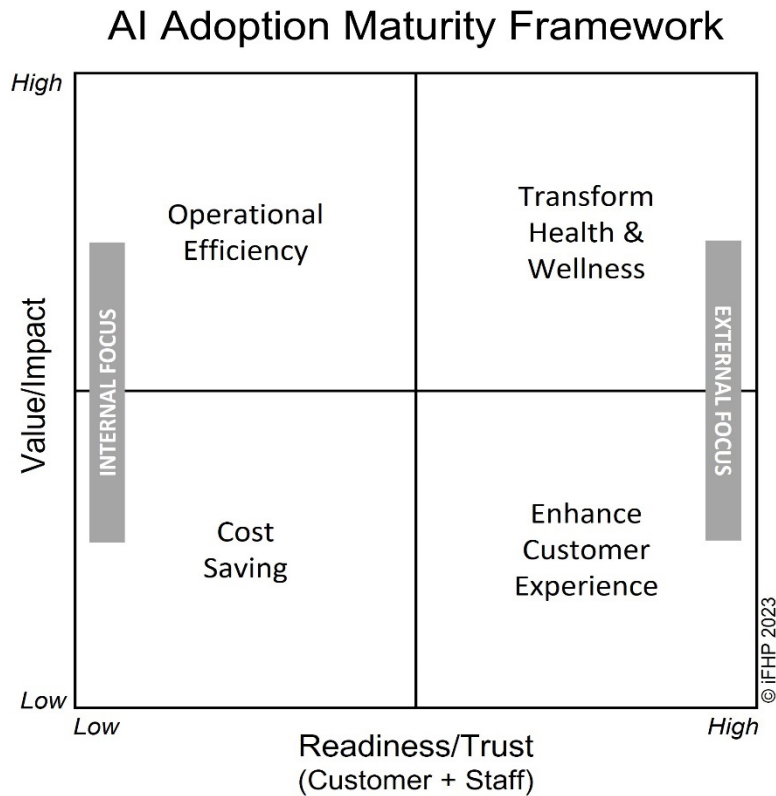


Figure 1. iFHP's AI Adoption Maturity Framework

1/ Cost Savings

Cost-savings are a key driver and a starting point for the adoption of any new technology and these use cases are generally the closest to being viable now.

Use cases for AI that primarily sit under cost-savings include:

- improving claims automation processing efficiency;
- fraud detection, via enhanced data modelling;
- streamlining business operations like reporting and underwriting;
- reducing or removing complex manual tasks.

Making savings could be the low-hanging fruit of AI adoption. Yet, for visionaries and change-makers, savings alone won't create a compelling enough case for AI adoption.

2/ Operating Efficiency

Improving operating efficiency will encompass cost-savings as AI is used to streamline processes and reallocate resources.

Use cases for AI to improve operating efficiency:

- providing smarter self-service options and automating elements of customer service;
- automating case review or claims processing, with human checks for complex scenarios;
- AI-powered triage using chat-bots to support healthcare professionals;
- automating workflows to deliver faster, more accurate member support through both self-service and direct channels.

3/ Enhance Customer Experience

With enhancing the customer experience as the guiding principle, use cases for AI in this phase of adoption include:

- AI for personalised product or sales recommendations (potentially reducing the role of third party distributors);
- AI for personalised, preventative healthcare and health plans;
- personalised, real-time underwriting and pricing;
- combining member, population and other data sets for personalised underwriting, fairer pricing and more informed choices by members;
- highly personalised serviced based on member preferences.

4/ Transform Health and Wellness

With transforming health and wellness as the vision, AI becomes an enabler for truly unifying payers, providers and patients in the project of supporting members' health throughout their lifetimes.

Use cases for AI in transforming health and wellness include:

- AI-driven virtual health assistants;
- data-driven preventative healthcare at population level by identifying at-risk groups and targeting the right recommendations at the right time for the right people;
- beyond 'treatment mindsets' that support wellbeing and become a 'health concierge' for individuals;
- ML algorithms for chronic disease management that link wearable sensors, genomic data and demographic data for long-term improvement in population health.

What's needed to maximise the impact of AI?

AI is a disruptive technology. To harness its benefits, staff and organisations must be prepared to adapt both a new toolset and mindset.

iFHP has identified three areas that need particular attention to support meaningful investment in AI. Each of these topics is sufficiently complex to warrant its own full report, therefore this overview highlights areas for further consideration.

The areas are:

- Improving data quality
- Engage with an evolving regulatory environment
- Collaboration within and between organisations

Improving data quality

As the maxim goes, you put rubbish in, you get rubbish out, and AI is certainly no exception. To get something useful out, start with good, relevant data. Machine Learning works best with 'real-life' data, which means medical and claims data from real cases. Some immediate stumbling blocks will be:

- data provenance is unclear, data isn't well labelled or updated frequently enough;

- siloed legacy systems don't have a clear data flow, so cannot pool or share data;
- concerns about privacy and sharing personal data.

And it's not a one-time activity either. "It's not the case that you do it once and you're done," says Gerry Raftopoulos, CEO at Munich Re HealthTech. "The data are constantly changing and as the data changes, the algorithms you're using will need to be retrained in order to keep the results as accurate as possible. You don't want to be using obsolete data sets."

For the most impactful use cases, like real-time pricing and highly personalised treatment, the power of the data models will come from complex modelling using real-life data. The data architecture required to realise this is still in its infancy and it will certainly involve wrestling with legacy systems, not to mention data privacy policies, to make this a reality.

Yet, internal data flow within a complex organisation is only one challenge to answer. What about fast, compliant and secure data flow between organisations? In most cases, no single organisation will own all the different streams of data needed and therefore partnerships, collaboration and a clear understanding of the regulatory landscape will be essential for increasing AI adoption maturity.

Engage with an evolving regulatory environment

Health data is sensitive information and sits within a special category in most existing data privacy and protection legislation. Accordingly, AI in healthcare will certainly require new regulatory and legislative frameworks. Relevant themes include:

- privacy and data protection for data held in AI models and platforms;
- potential copyright and intellectual property infringements;
- ethics of inclusivity and risks of replicating bias (racial, gender and other socioeconomic disparities) in AI models.

At the very least, the industry needs strong organisational guidance for the use of AI and a robust testing regime to regulate AI output.

Raftopoulos agrees, but warns these are early days. "Frameworks and regulations to govern AI are currently only in their earliest stages. With all the hype about AI we are likely to see things becoming more restricted rather than freer. And each jurisdiction will be different, in the same way as for data privacy, so it's [going to be] really difficult to manage."

He's right. The regulatory environment for AI in general is still developing, not least because it's unclear where AI regulations will sit and whose responsibility it is to govern it. The EU has shown some leadership here with its AI Act, however it is difficult to predict what will fall within future compliance requirements and this may deter investment in the more innovative adoption ideas.

We can expect consumers to be wary of how organisations might use their sensitive health data. It's not enough to observe current regulations and handle their data with the utmost care for their privacy, payers also need to earn consumers' trust over time. While an insurer can potentially reduce risk and realise health benefits for many by using member health data in their AI models, how do they create significant enough incentives for individual members to allow access to their data? How transparent the industry is around data and AI has great potential to affect the outcome of trials, as well as brands and reputations.

Milosh Milisavljevic, Group Executive Customer Portfolios at Medibank, shares how the Australian insurer is keeping ahead of the regulatory curve: "We really need to establish the right frameworks to keep things ethical and safe. There's a risk of this happening too slowly and also a risk that regulations won't be developed broadly enough, both of which could stifle and delay valuable innovation. At Medibank, we are engaging proactively with government and other stakeholders in that conversation."

Collaboration within and between organisations

A large part of the challenge of harnessing the power of artificial intelligence will be integrating AI with health funds' operating models, or even redesigning operating models in response to the (positive) disruptive nature of AI. Expect to

see a rash of job ads for the new role of Chief AI Officer start to appear, with those pioneering incumbents destined for a seat at the ExCo table alongside the CIO.

“Largely speaking, AI is a force for good,” says Professor Khemka, sharing his expectation for the medium term. “What we can’t predict is the pace of advancement in AI and we can expect an accelerated development pattern in AI that we haven’t seen in any other technology to date. There will be a lot for us to keep up with over the next ten years.”

In the scramble to keep up, care must be taken to ensure AI adoption stays aligned with the organisation’s strategic goals and organisational purpose, otherwise it risks becoming an expensive distraction from core activities.

First, executive teams must take care to define the health-related and operational pain points where AI can truly add value, a concept popularly referred to as defining a ‘North Star’. The iFHP AI adoption maturity framework can be used to help evaluate where payers are now, where they want to get to and where the biggest opportunities lie.

Second, successful AI deployments need to blend technical expertise, medical expertise and business expertise to identify those AI solutions that will add most value. A cool head is essential for differentiating the ‘new and shiny’ from the genuinely useful. For example, there would be little point designing an AI-powered, virtual mental health service without first understanding what drives members to seek mental health advice and what encourages and discourages them to access it (as well as what product benefits are actually available to members).

Next, teams across each payer’s business need to build their comfort and confidence with the opportunities and risks of AI. Alison Howarth, clinical psychotherapist at Medibank, believes that adopting AI successfully will require a comprehensive change management programme due to anxiety about AI tools becoming part of work. Most obviously, people are worried about losing their jobs to AI bots. Other concerns are more subtle: if one kind of work is assisted by AI and another is not, is one more valuable than the other? What does that say about how a company’s employees are perceived or valued by the organisation?

The change management requirements of adopting AI are less ‘headline-grabbing’ than the use cases and it would be easy to significantly underestimate the cost of AI-driven transformation. As Howarth explains: “For some, AI is a way to save us a lot of time, which then leads to cost savings. However, the change management side of AI is likely to be expensive. For companies wanting to implement AI and get it right for the different employees using it will take a lot of work. Perhaps we need to think of AI as a kind of incurred expense and it may be a little while before we get the final invoice.”

Nonetheless, Howarth welcomes the opportunity for staff to use AI tools “to do the rote work” and allow Medibank’s people to concentrate on what humans are really good at, being creative and problem solving. The opportunity for employers is for AI to become part of their toolkit to retain and attract the most talented people. With staff populations fully behind it, AI will give payers the capacity to go beyond reactive treatment and insuring against future health events. It’s likely to be a costly journey and AI’s potential for adding value often isn’t directly linked to paying insurance claims, which is still the core business of insurers. Purely as a tool to mitigate risk, AI’s financial impact will only be realised over the long term. However, if AI is used in the context of improving wellness there is broader positive impact for insurers which extends into the health eco-system as a whole. John McPherson explains: “From an insurance point of view, many of the ideas for using AI may not be financially viable, except for the big corporate players who can support a very long-term financial view. Seen through a wellness lens, AI easily becomes part of a service to support people to have longer lives that are also healthier lives.” That is a noble goal.

Certainly there is a great appetite in the health insurance sector for population health management and improving the wellness of insured cohorts. This makes good business sense; preventative measures generally reduce the overall burden of healthcare costs (and hence the risk for insurers). It also shifts the relationship between members and insurers from individual claims to long-term partnerships, thereby increasing customer satisfaction and loyalty.

When viewed as an essential part of the toolkit for transforming health and wellness, AI will be a powerful force for creating radical change in the role of health insurers and how their customers manage their health.

Concluding remarks

Developments in AI are accelerating the pace of technological change in an environment that was already moving fast. As yet, there are no definitive answers on how payers should position themselves to harness the future opportunities that AI opens up.

There are, however, many questions, not least the following which we offer as thought starters:

1. AI in the service of ‘transforming health and wellness’ offers the potential to create a radical shift in the relationship between insurers and the people they serve. What are the opportunities for insurers to differentiate themselves in this space?
2. What training and upskilling is needed for payers’ workforces to truly embrace AI, both within existing data analysis teams and those who work in other organisational areas?
3. How can health insurers ensure they are part of ongoing conversations about AI regulation to represent their own members’ interests at both national and global levels?
4. It’s clear that AI adoption won’t shift the dial for health and wellness until the different stakeholders within the healthcare system are all on board. How, as funders, do you lead or influence the adoption of AI within the broader health-ecosystem?
5. AI will not be welcomed with open arms by all. How do health insurers bring members, customers and prospects on the journey with them as they adopt AI and build trust with them that AI is a force for (their) good?

As AI continues to develop as an agent of positive change, iFHP will keep sharing its findings and insights with its members.

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iFHP would like to pass on its grateful thanks to everyone who contributed their expertise, opinions and experience to this paper.

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