A (Gen)AI Pathfinder

Unlock the potential of (Gen)AI in health insurance

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Executive summary

(Gen)AI—which is the combination of generative artificial intelligence (GenAI) and "traditional" AI—will enhance operational efficiency in health insurance by up to 30% within the next five years. (Gen)AI is revolutionizing industries, especially health insurance. This cutting-edge technology offers unparalleled opportunities to boost operational efficiency and significantly improve health and financial outcomes.

Achieve impactful results within the first three months of implementation—for example, up to a 50% reduction of customer inquiry search times. Health insurers are already diving into (Gen)AI, discovering its transformative potential for their operations and services. These pioneering efforts showcase immediate benefits and set the stage for widespread adoption.

Transformative (Gen)AI steps can begin within six months—successfully implementing applications initially regardless of technology and data setup. While experimentation is vital, focusing on quick wins is crucial for momentum. To truly harness (Gen)AI's power, health insurers must embrace a strategic framework. This means selecting applications based on business needs and technical readiness, ensuring the identification of the best near-term opportunities and building a foundation for future advancements. This approach also ensures adherence to privacy and security standards.

(Gen)AI can be a key lever to address the reduction of the 25% of preventable health care costs, effectively closing the gap between identified potential and actual gain. Scaling (Gen)AI applications requires a robust operating model anchored by four pillars: strategic alignment, organizational and cultural adaptation, technology enhancement, and responsible AI policies. By acting decisively and strategically, health insurers can rapidly unlock (Gen)AI's potential, reaping immediate, tangible benefits tailored to their unique circumstances.

Three key actions for health insurers

To fully capitalize on the transformative power of (Gen)AI, health insurers need a structured approach. The following are three critical actions to take, ensuring you achieve immediate benefits while laying the groundwork for sustainable, long-term success:

1. **Assess your starting point**
   Understanding your initial situation is critical. Assess your technical readiness, existing data sources, and privacy/security requirements. Make informed build-or-buy decisions to tailor a unique (Gen)AI approach. Establish a dedicated task force to guide these early steps and support scaling efforts.

2. **Focus on quick wins**
   Aim to enhance your competitive edge with (Gen)AI. Prioritize high-potential applications through small-scale proof of concepts, allowing secure, manageable experimentation. These projects provide invaluable learning experiences and pave the way for broader implementation.

3. **Embrace a strategic transformative approach**
   Adopt a strategic transformation mindset from the start, even with small proofs of concept. Focus on the four pillars: strategy, organizational and cultural adaptation, technology, and policy. This comprehensive approach ensures ethical and effective (Gen)AI-driven transformation.

> **The time to act is now, leveraging (Gen)AI to revolutionize the industry and secure a competitive advantage for the future.**

By implementing these three key actions, health insurers can not only achieve immediate and tangible benefits, but also position themselves at the forefront of innovation.

(Gen)AI is more than a trend for health insurers

Health insurers are under increasing pressure to streamline their processes to effectively manage cost efficiency and the continually rising health care claims. (Gen)AI is a key lever to drive operational efficiency and enhance health and financial outcomes to address the challenges of the evolving healthcare market.

> **(Gen)AI will enhance operational efficiency in health insurance by up to 30% within the next five years.**

Nearly all daily tasks of health insurers can be optimized with (Gen)AI (see Deep Dive Box), enhancing efficiency and competitiveness. Some insurers already adopting (Gen)AI are achieving significant performance and service advantages.

Examples include local, regional, and global health insurers insurers utilizing (Gen)AI for a wide range of applications, including care management, claims management, and customer service. For example, a prominent multinational health insurer is utilizing AI to offer personalized health care, enhanced patient pathway management, and clinical decision support. Additionally, a tech-savvy US health insurance provider is committed to simplifying the health care experience with innovative digital tools and highly personalized customer support.

These companies are revolutionizing the industry by integrating advanced technology to enhance patient care and streamline services. As the industry undergoes internal and external transformations, insurers must strategically invest in (Gen)AI to maintain their competitive edge and set future standards.

Key introducing statements for health insurers:

- Health insurers need both traditional AI and GenAI to stay competitive and streamline processes.
- (Gen)AI delivers the decisive “Wow factor” enhancing client engagement and retention by utilizing various data inputs to provide a personalized experience.
- Investing in (Gen)AI optimizes tasks and sets industry standards, with some insurers already benefiting significantly.

Deep Dive Box

What is (Gen)AI?

AI, originating in the 1950s, has evolved significantly with increased computing power and the ability to make predictions from vast data. About 25 years ago, it advanced to mimic the human brain's ability to connect experiences, culminating in GenAI, which uses deep learning and Generative Adversarial Networks (GANs) to generate predictions and create outputs from extensive data.

GenAI excels at generating new content, understanding unstructured texts, engaging in customer dialogues, and personalizing experiences at scale, enhancing productivity and creativity with minimal specialist knowledge required. It offers broad applications across industries, providing efficiency gains quickly, even with unstructured data.

Traditional AI, reliant on structured data and strict rules, remains crucial in health insurance for underwriting, propensity modeling, budget allocation, fraud detection, forecasting, and predictive accuracy. GenAI can complement traditional AI or function independently to unlock significant value. This combination of traditional and generative AI is referred to as (Gen)AI.

Where can health insurers start?

(Gen)AI is a powerful technology with a wide range of capabilities pertinent to developing innovative solutions in the health insurance sector. The following are the five core functions of (Gen)AI.[1]

1. Information retrieval and summarization
2. Content creation
3. Conversational interfaces and language services
4. Data and information analysis and interpretation
5. Transcription, along with speech-to-text and text-to-voice processing

In addition, (Gen)AI supports further functions such as multilingual translation/localization and personalized insights. Together, these core and additional functions form the building blocks for a wide range of different applications along the health insurance value chain. Exhibit 1 shows exemplary applications—from product development and underwriting to customer service.

> **(Gen)AI can be a key lever to address the reduction of the 25%[2] of preventable health care costs, effectively closing the gap between identified potential and actual gain.**

The numerous (Gen)AI applications along the value chain present enormous potential to revolutionize this sector; they must be carefully prioritized to ensure effective and efficient integration. From working closely with dozens of (health) insurers around the globe, we have seen that companies unlocking significant impact within a short amount of time follow a methodological assessment of their situation and prioritize (Gen)AI applications accordingly. To fully capitalize on these opportunities (see Deep Dive Box for examples), health insurers should start with applications that are not only impactful for their specific needs but also straightforward and quick to implement, allowing for valuable early experimentation with (Gen)AI.

Exhibit 1 - Health insurers' value chain and (Gen)AI application examples

Key functions

Product development

Analyze public data on trends, health care utilization and competitor offerings to enhance own products	Optimize product launch based on market conditions	Process market research surveys and customer feedback to generate new product ideas	...

Marketing and sales

Recommend competitive rates by comparing competitors' reimbursement rates	Create pictures and videos for marketing campaigns	Personalize text for an individual approach to attract new customers at scale	...

Underwriting

Cluster along key criteria to identify patterns for pricing and policy issuance	Create text modules and scripts for negotiations purposes	Adapt policy language to client clusters	...

Care management

Analyze customer-specific data (risk assessment) to offer preventive service and intervention measures	Develop individual care plan based on demographic profiles	Offer AI-supported digital therapies and coaching programs for selected patient groups	...

Claims management

Draft communications for standard mailings to claimants	Flag potential fraud cases with intelligent validation rules, spotting unusual patterns	Ensure accurate claims outcomes with price transparency and patient-friendly explanation of benefits	...

Customer service

Cluster incoming requests along patterns, incl. sequence of request priority	Suggest customer-agent concise and personalized answers	Summarize conversations and store automatically in CRM	...

Support functions

IT/Infrastructure: Generate software code	Controlling and Finance: Create dashboards/forecasts/ simulations/business reports	HR: Support in the hiring process or creation of trainings and job simulations	...

Deep Dive Box

Three exemplary (Gen)AI journeys for health insurers

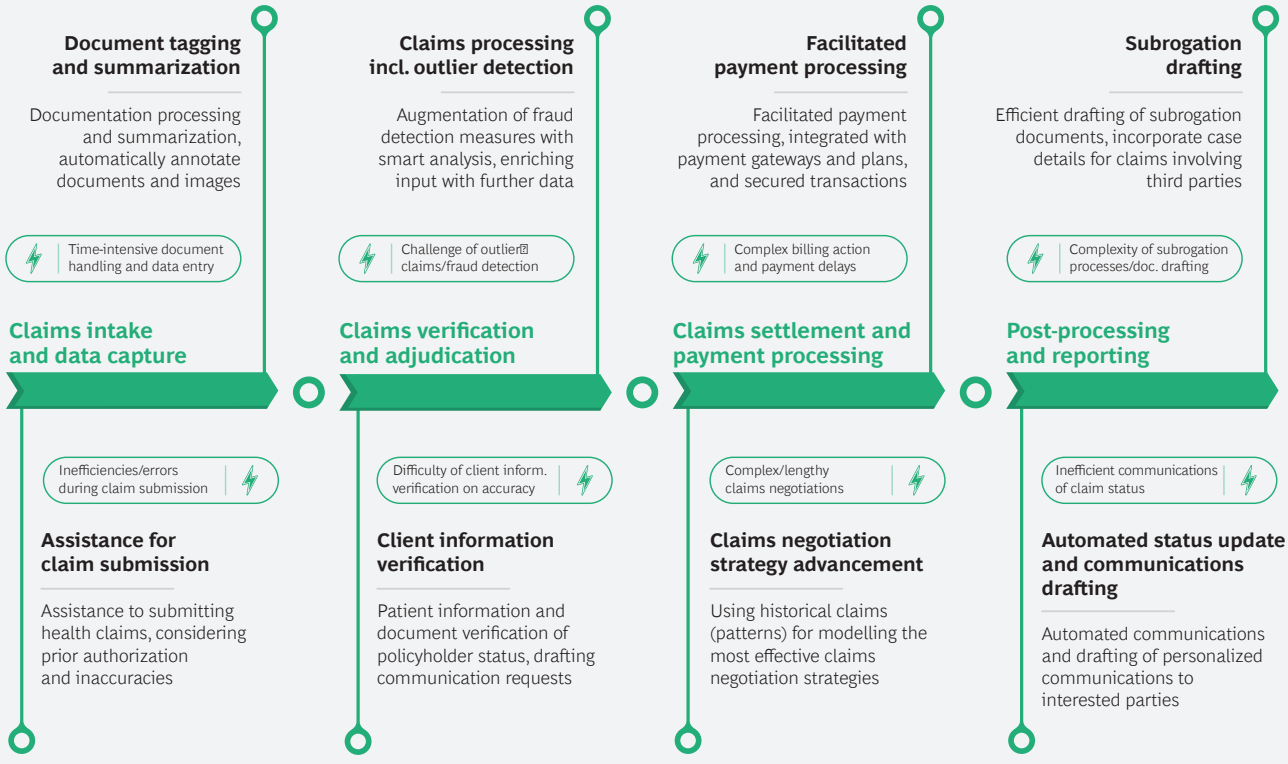
Deep dives into claims management, care management, and customer service show how (Gen)AI enhances operational efficiency, boosts customer satisfaction, and reduces claims costs for health insurers. These areas should be prioritized for (Gen)AI deployment due to their significant business potential. At the same time, health insurers should start with applications that meet four key criteria—value, feasibility, risk, and strategic alignment—for valuable early experimentation with (Gen)AI.

Claims management journey. Based on our project experience, (Gen)AI is already solving everyday problems and reducing costs in medical invoicing management. (Gen)AI enhances claims verification through smart algorithms and shortens lengthy claims settlement negotiations, for example, by selecting the most effective negotiation strategy based on historical settlements. In addition, applications support health providers and patients in submitting claims to insurers by reducing errors and communication loops due to false or incomplete data. By integrating (Gen)AI into payment processing, complex billing processes and payment delays can be reduced.

For example, BCG worked with an Asian health insurer to build and implement a (Gen)AI audit co-pilot application to reduce manual documentation and unlock efficiencies. Within just 10 weeks, the co-pilot tool was tested and fully implemented, ultimately reducing the manual writing and documenting processes for auditors by up to 50%.

Ultimately, end-to-end leveraging of (Gen)AI applications in claims processes will thoroughly change current operations and unlock significant efficiency gains (see Exhibit 2).

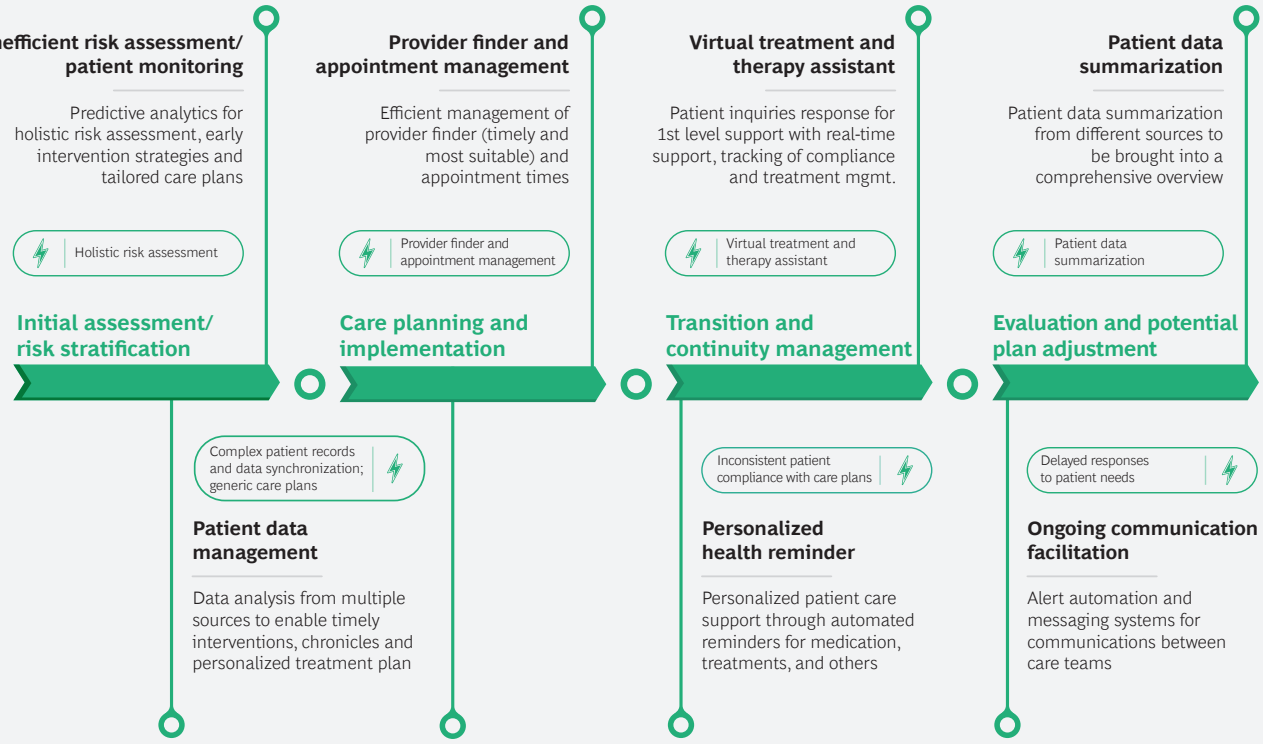
Exhibit 2 - Claims management journey



Care management journey. Care management involves numerous data sources that are often integrated into disparate, unconnected systems. Here, (Gen)AI can showcase its far-reaching potential by structuring, integrating, and analyzing various data sources to drive personalization of both the customer and patient experience across all treatment areas (see Exhibit 3). Notably, AI-driven predictive analytics can more accurately and efficiently identify at-risk patients, thereby enabling highly personalized care management with early preventive health care that ultimately increases overall patient well-being and health. For example, a German health insurer implemented an AI model co-developed with BCG to predict the risk of hospitalization for heart failure in the next 12 months out of all hypertension patients with a known risk factor. By pro-actively addressing at-risk members to see a general practitioner or cardiologist, up to 20% reduced hospitalizations in heart failure were realized.

Additionally, (Gen)AI enables patient-specific selection of appropriate and available providers—including appointment management through predictive algorithms that factor in real-time data on cancellations and emergencies. These applications highlight the need for a clear vision and strategy of (Gen)AI implementation to realize incremental potential from combining traditional AI and GenAI.

Exhibit 3 - Care management journey

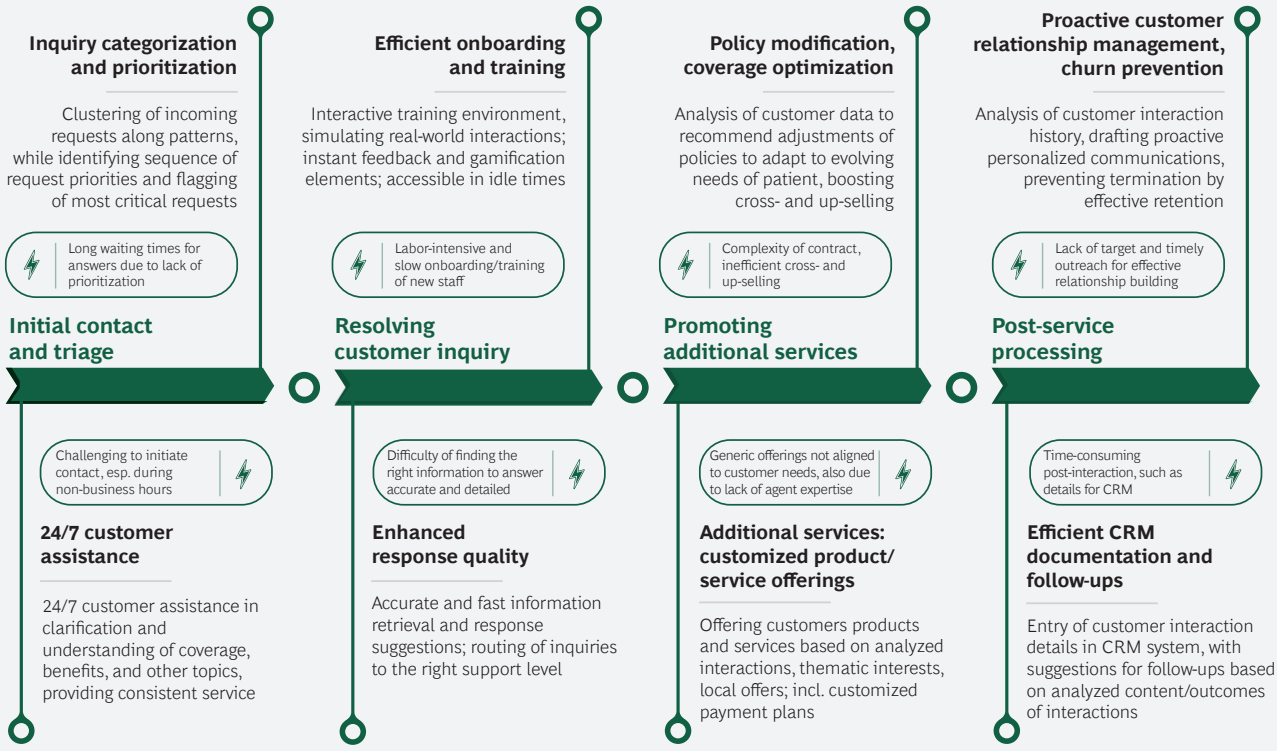


Customer service journey. This area is often considered the prime example of (Gen)AI applications, with several near-off-the-shelf solutions readily available and a huge potential for efficiency gains (see Exhibit 4). Our experience with health insurance clients shows that (Gen)AI can automate up to 70% of standard customer inquiries, thereby freeing up agents to focus on complex tasks.

With limited resources, customer inquiries often follow a first-in, first-out principle, causing delays in serious or time-critical cases. (Gen)AI can prioritize urgent requests and manage complex customer relationships, making real-time recommendations for contract adjustments and new product offers. By supporting agents with reply suggestions and providing 24/7 assistance, (Gen)AI is set to revolutionize the customer service experience, addressing the high demand for personalized interactions.

For example, together with multiple health insurers around the globe, we build and implemented (Gen)AI customer service applications, enhancing customer service and customer experience. Once fully implemented, these applications have realized up to 30% customer service cost reduction through higher efficiency and up to 6% topline uplift through better customer retention and acquisition.

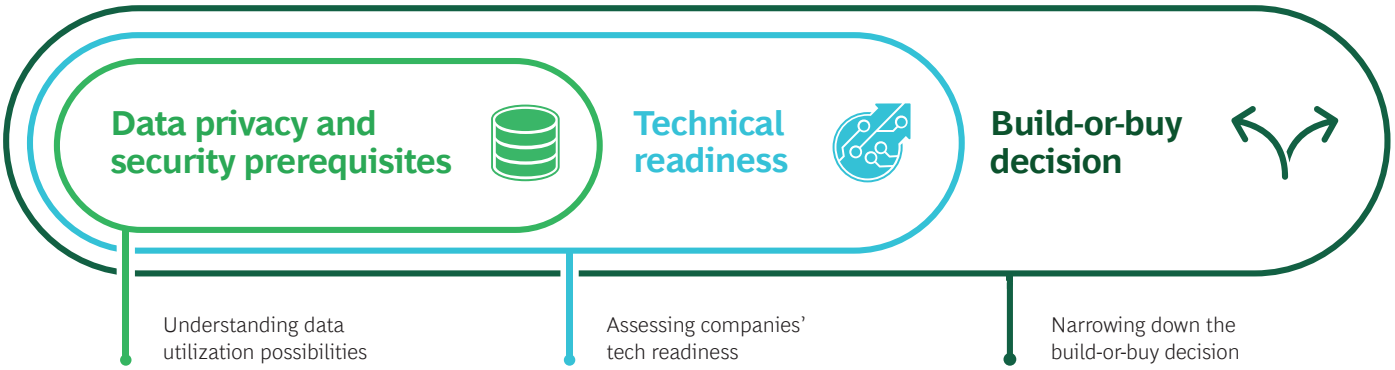
Exhibit 4 - Customer service journey



Three key factors to consider when determining the starting point for leveraging (Gen)AI applications

Understanding which (Gen)AI applications yield the best short-term results helps health insurers adopt (Gen)AI in alignment with their needs and capabilities. This requires assessing their individual situations, including available data sources, privacy and security requirements, technical readiness, and build-or-buy decisions (see Exhibit 5).

Exhibit 5 - Three key factors to consider when determining the starting point for leveraging (Gen)AI applications



Data privacy and security prerequisites

While data protection and security rules vary across the globe, the health sector is nearly always among those industries with the most rigorous provisions, as health data is by its very nature the most sensitive. Therefore, when leveraging (Gen)AI, health insurers must consider and ensure IT security as well as adherence to applicable data protection and security requirements. In this context, insurers must keep in mind that there might be company-specific data governance guidelines with stipulations beyond those legally required.

The (Gen)AI applications utilized must meet all regulatory security and data privacy requirements, which can be achieved using methods such as anonymization, encryption, or access control. Moreover, data selection for applications extends beyond data privacy and security prerequisites to include considerations of data availability, governance, and quality (see Deep Dive Box).

As a straightforward initial step, health insurers can use publicly available data sets and non-sensitive internal data to minimize compliance risks, unlocking significant potential in the process. As they improve their capabilities for data handling with regard to (Gen)AI, insurers can then progress to use more sensitive data. This methodical approach not only mitigates the initial risks, but also enables strategic data usage to be expanded—and facilitates the gathering of the crucial technical data and human resources capabilities needed to reach the next level.

Deep Dive Box

Data sources for (Gen)AI applications

A solid understanding of the necessary security standards and applicable data protection requirements for a given data source is an absolute prerequisite for the source's use within (Gen)AI applications. Basically, the following are three types of data sources in this context—each with a broad spectrum of possible (Gen)AI applications:

- **Public data—either as open source or possibly via licenses or payment models.** For example, public data sources can be leveraged for (Gen)AI, creating images or video material for marketing campaigns, requiring a thorough vetting (incl. copyright laws) before implementation to ensure high-quality and guideline-compliant results.
- **Internal company data, such as internal knowledge databases or provider information.** These can be leveraged for (Gen)AI applications to provide more insightful and relevant results, such as those required for smart chatbots. However, it is crucial to establish authorization concepts to prevent confidential information from being shared with customers.
- **Personally identifiable information and strictly confidential internal company data.** It is crucial to ensure compliance with all internal and regulatory requirements. Therefore, integrating these data sources into (Gen)AI applications requires flawless data governance.

Technical readiness

While (Gen)AI applications can be implemented in any technical environment, defining an initial scope that takes into consideration integration complexity ensures quick implementation. Most health insurers, regardless of their technical readiness, can easily start with (Gen)AI applications that require only minimal tech integration. Short-term adoption is also feasible for insurers with legacy systems characterized by manual processes and isolated data storage, and thereby little scalability (see Deep Dive Box).

> **Achieve impactful results within the first three months of implementation—for example, up to a 50% reduction of customer inquiry search times.**

To determine where to start with (Gen)AI technology, health insurers of all technical maturity levels should consider launching low-threshold solutions that promise short-term efficiency gains. Building on this foundation, and based on their technology readiness, health insurers can then gradually develop their own systems into more powerful, more integrated applications. Doing so ensures that each step is sustainable and in line with their evolving technological landscape.

Deep Dive Box

Potential methods for (Gen)AI implementation

Standalone solutions. Suitable for insurers with lower tech maturity. Alongside standalone solutions, prerequisites on data applications and infrastructure levels can be established simultaneously to enable deeper integrations. Example: A (Gen)AI knowledge assistant using company-specific data to draft customer responses, reducing processing times.

Modern system clusters. Focus on web/app development and cross-functional areas such as input management and customer service software.

Service-based architecture. For insurers with modern, flexible tech stacks (APIs, cloud infrastructure), integrating (Gen)AI more deeply into IT systems using centralized data hubs or stores such as data warehouses or data lakes. Example: (Gen)AI chatbot integrated into customer relationship management (CRM) systems but monitored by a human in the loop to provide intelligent and effective personalized communication.

Future scenario. Health insurers with advanced modular IT systems can leverage (Gen)AI extensively across business units and launch low-threshold solutions for short-term gains, then gradually develop more integrated applications based on technology readiness. This ensures sustainable progress aligned with the evolving technological landscape.

Build-or-buy decisions

With the increasing accessibility of (Gen)AI and its reduced requirements on data structure compared with traditional AI, it is expected that the health market will see a significant rise in both standalone solutions and enhancements for widespread proprietary software, emphasizing the need to carefully consider implementation strategies.

Determining which data should be used for initial (Gen)AI applications and assessing technical readiness are the building blocks for key decisions when getting started with (Gen)AI—**what to build** and **what to buy:**

- Building (Gen)AI applications in-house is advisable for applications that can be modified and reused across various scenarios, leveraging widely adopted tools to accelerate the building process. Key advantages include have greater control of tools, better integration of proprietary data, technical flexibility, and development of internal (Gen)AI capabilities.

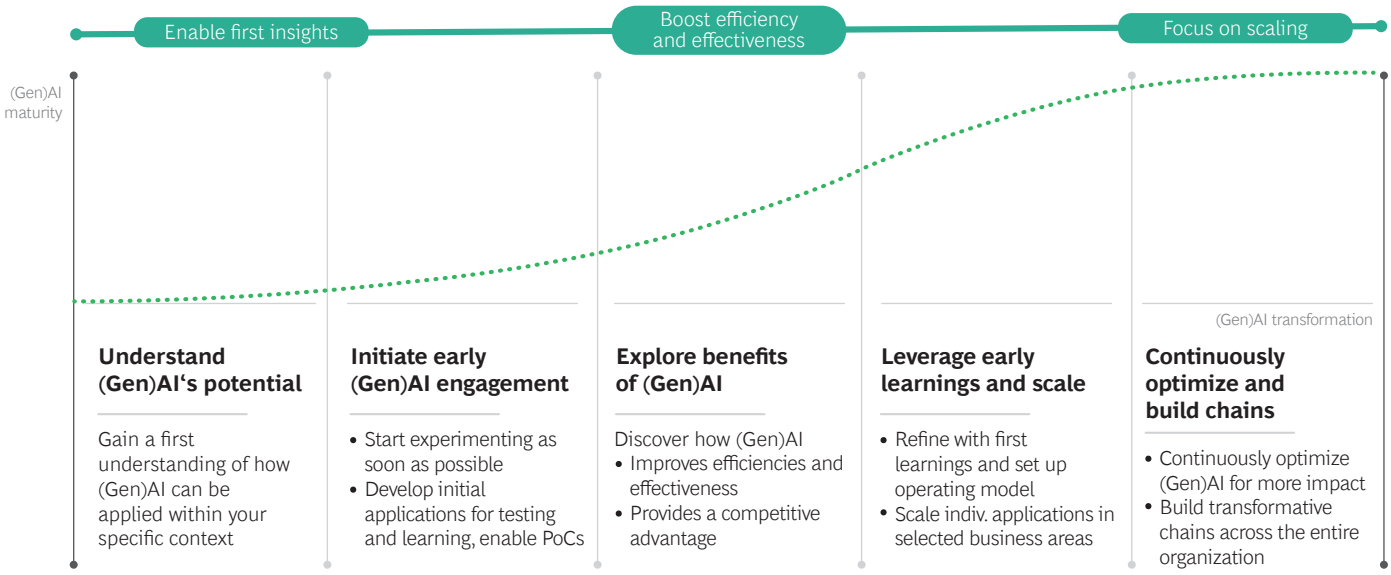
- Buying a (Gen)AI tool is advantageous when existing providers offer easily deployable add-ons, minimal customization and integration are needed, the application relies on public data, and resources for building a custom solution are unavailable.

- Before deciding to buy, it is essential to evaluate expected value, total costs, and contract terms, while ensuring IT, compliance, and business teams collaborate to avoid costly provider lock-in and long lead times.

While data sources and technical readiness are crucial, overall (Gen)AI objectives, costs, speed of implementation, and application performance should also be considered in build-or-buy decisions. Proper assessment can reduce lead times from months or years to weeks, speeding up the realization of potential.

In sum, addressing data privacy, security prerequisites, technical readiness, and build-or-buy decisions enables health insurers to start implementing (Gen)AI and embark on long-term transformation. Beginning with a low-threshold proof of concept provides a realistic overview of (Gen)AI's impact, allowing insurers to build internal capabilities and scale applications across an organization. This step-by-step approach helps insurers realize efficiency potential, gain experience, and align their organization, ultimately unlocking the full potential of (Gen)AI and building transformation chains across all business areas globally (see Exhibit 6).

Exhibit 6 - (Gen)AI pathway evolution



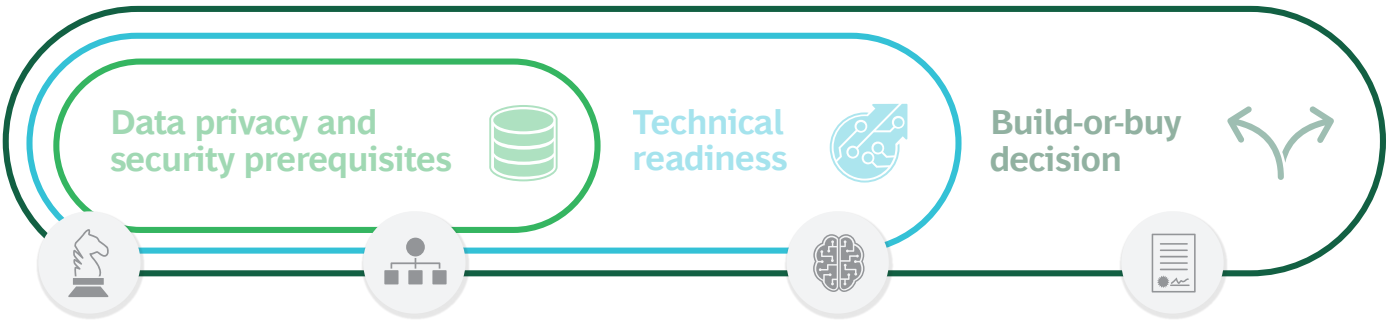
Key (Gen)AI starting point statements for health insurers

- Ensure compliance with data protection standards for public, internal, and personal data, adhering to legal and internal guidelines.
- Start with simple (Gen)AI solutions for legacy systems; use more integrated applications for modern tech stacks.
- Choose between building custom (Gen)AI applications or buying existing solutions, considering cost, value, and technical capabilities.

How can health insurers leverage and scale the benefits?

After establishing a starting point and gaining insights from small-scale (Gen)AI proofs of concept, a transformation is needed to fully realize (Gen)AI's potential across an organization. This requires ensuring effective operation and widespread utilization of (Gen)AI solutions to derive greater value and functionality. Implementing a multi-level operating model, based on strategy, organization and culture, technology, and policy, is essential for this transformation (see Exhibit 7). When supporting our (health) insurance clients on these end-to-end (Gen)AI transformations, addressing the four key transformation pillars has proven effective to unlock up to 10% margin uplift over 12–18 months.

Exhibit 7 - (Gen)AI path – key transformation pillars



Strategy

Leverage strategy to define the initial (Gen)AI playing field and set the right org. ambition

Organization and culture

Future-proof organization through right-sizing, up-skilling, and tactical hiring

Technology

Design tech architecture to build and scale (Gen)AI across entire organization

Policy

Shape (Gen)AI to strengthen corporate values and avoid regulatory pitfalls

Strategy: defining goals for value creation through (Gen)AI

A well-defined strategy that incorporates (Gen)AI is essential for setting the goals to create value through (Gen)AI. This strategic foundation is crucial for effectively deploying and successfully scaling (Gen)AI within an organization. By incorporating a robust strategy that includes (Gen)AI, health insurers can anticipate changes in regulations, technology, and customer expectations, allowing them to adapt their offerings accordingly.

Integrating (Gen)AI into the strategy involves the following three important steps:

1. **Understanding the dynamics of (Gen)AI.** Health insurers must fully understand (Gen)AI capabilities and applications, regularly monitoring market trends to refine strategies. This helps identify how (Gen)AI can improve products, services, and processes. Insurers should assess existing data and AI technologies for integration and determine high-level requirements for the technology stack. They may need to acquire additional data for priority applications and adapt the technology stack accordingly.

2. **Define overarching strategic goals.** Next, insurers should define a long-term vision for the way in which (Gen)AI will transform their company, industry, and business model. This includes setting ambitious goals for value delivery of (Gen)AI and the required scale of investment. These new aspirations should be integrated into the ongoing strategic planning cycle. To embed (Gen)AI ambitions into the overall digital strategy, it is necessary to break down general goals into specific objectives for core business functions.

3. **Prioritize measures to achieve goals.** Insurers can use a business-case approach to allocate resources effectively and maximize value. Prioritizing (Gen)AI initiatives within and between business functions starts with creating an inventory of applications and a roadmap for each category. Insurance companies should select two to four applications for immediate implementation. A governance structure must be established to coordinate efforts and monitor progress across all business functions.

Our experience, based on hundreds of projects, shows that aligning all efforts with clear and consistent strategic goals yields positive outcomes: health insurers can enhance customer satisfaction through higher-quality services, significantly increase return on investment, and foster continuous development. This approach provides a strong framework for the other transformation pillars in the (Gen)AI journey.

Key strategic statements for health insurers

- Clearly define strategic goals for enhancing a company's market and competitive position through (Gen)AI
- Develop a (transformative) approach to optimally leverage (Gen)AIs technological possibilities to achieve these goals.
- Integrate (Gen)AI into a company's long-term digital strategy.

Organization and culture: human involvement is crucial for successful adoption and scaling

For a resilient future, health insurers must prioritize organizational and cultural changes when implementing (Gen)AI. Initially, up to 70% of the focus is on outcomes, technology, and IT to establish a solid technical foundation and validate (Gen)AI's potential. This stage involves setting up systems, building IT capabilities for scaling, and gaining stakeholder support.

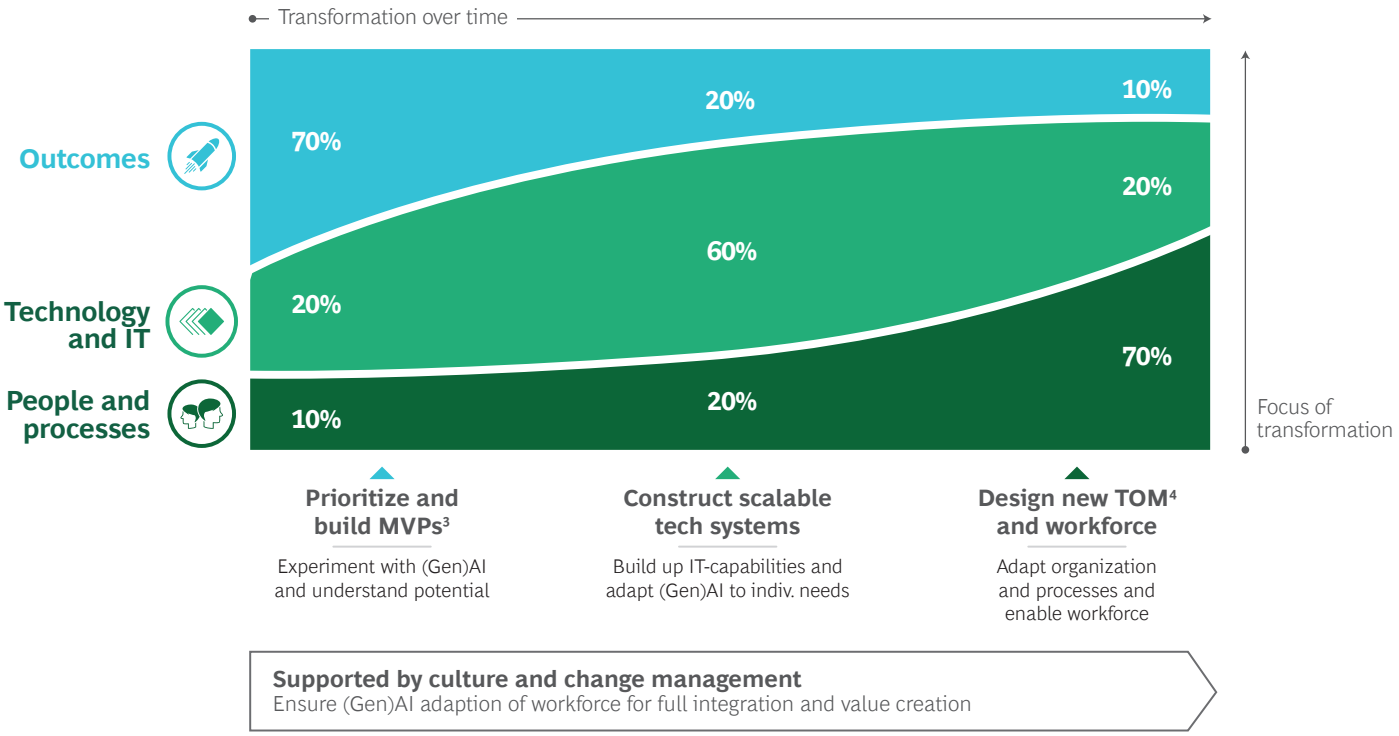
As systems stabilize, the focus shifts toward integrating (Gen)AI into daily operations, training employees, and optimizing workflows. The importance of people and processes grows significantly, starting at 10% initially and potentially reaching up to 70% in later stages (see Exhibit 8), highlighting the critical role of human involvement in sustainable corporate transformation.

A successful transformation requires a (Gen)AI-capable target operating model (TOM), which involves adjusting the organization, processes, and workforce for effective operation. This TOM includes process automation, workflow redesign for productivity, and updated decision-making protocols. Realizing (Gen)AI's full potential requires identifying changes in work, people, and structures, then defining and implementing new roles. Talent management, career paths, and training programs will need to evolve, with new digital roles demanding expertise in agile working, model tuning, prompt engineering, output evaluation, bias mitigation, and (Gen)AI integration.

The greatest challenge in integrating (Gen)AI is activating an entire organization. Successful integration requires a culture of innovation, continuous learning, and adaptability. Employees and leadership must understand and embrace (Gen)AI's value, adapting their work processes accordingly. Change management is crucial, guiding insurers through adoption, mitigating resistance, and ensuring smooth, sustainable implementation. This involves clear communication about (Gen)AI benefits, upskilling, and reskilling to equip a workforce to leverage (Gen)AI effectively and adapt behavior patterns.

Ultimately, the goal is to create a culture that views (Gen)AI as a tool that can enhance human capabilities, rather than replace them, and is open-minded to the changes this new technology will bring.

Exhibit 8 - The 10/20/70 mix reverses during the transformation



3. Minimal Viable Product
4. Target Operating Model

Key organizational and cultural statements for health insurers

- Adapt organizational hierarchies and work processes to meet the needs of (Gen)AI.
- Empower the workforce and equip employees for the new digital roles.
- Implement change management to ensure functional integration and smooth introduction of (Gen)AI.

Technology: enhancing technical readiness

Digital development has rapidly evolved over the past decade, advancing from partial digitization to standard digital processes and scalable solutions, significantly boosting digitalization in the health insurance sector. Today, digital capabilities are essential for informed decisions and operational efficiency. Health insurers must prioritize technology to remain competitive, making it a key transformative pillar.

Insurers using (Gen)AI-supported approaches are ahead in their maturity journey. To compete, insurers need data-driven decision-making systems and a future-proof IT architecture, including an enhanced technology stack with (Gen)AI. Those with a well-structured data architecture and governance can adopt (Gen)AI technologies more quickly.

New capabilities such as foundation models and (Gen)AI orchestration are needed, along with enhancements to existing capabilities such as data management, cybersecurity, and cloud. Evaluating cloud utilization and suitable (Gen)AI models, and potentially building partnerships with tech players, is crucial. While using the right technology and digital tools, empowering employees for digital work is equally important, as discussed in the section on organization and culture.

Key technological statements for health insurers

- Establish prerequisites for (Gen)AI on data, application, platform, and infrastructure level and transform processes to support data-driven decision-making.
- Ensure that data is quickly and accurately accessible, and quality and timeliness are maintained, to strengthen and improve (Gen)AI models.
- Begin with proofs of concepts and iteratively refine and scale (Gen)AI solutions for your organization. The right technological basis, such as COTS (commerical-off-the-shelf) tools, open-source, or custom-developed, depends on the individual use cases and requirements.

Policy: implementing rules to make the internal company value system (Gen)AI-ready

Assessing data privacy and security is crucial for scaling (Gen)AI applications within an organization in line with internal and external policies such as the EU AI Act, which sets ethical and safety benchmarks for AI, impacting the use of (Gen)AI in handling sensitive health data. Health insurers must ensure strict data management, human oversight over high-risk systems, and clear explanations of AI decision-making.

A robust policy governance framework is essential, with clearly defined responsibilities for compliance and risk evaluation. Feedback loops and thorough reviews, particularly with a “human-in-the-loop” approach, are necessary for critical applications. Education on safe and compliant AI usage should be institutionalized.

At the application layer, enforcing (Gen)AI policy governance involves user authorization, data preprocessing, and security measures such as “gatekeeper” large language models (LLMs) and guardrails. Transparency is maintained through watermarking and explainable models, while regular bias testing ensures reliability. Continuous third-party compliance monitoring and enhanced cybersecurity protocols are vital for overall data security.

Many insurance companies are already committed to adhering to ethical principles in their use of (Gen)AI, focusing on fairness and justice, safety and resilience, social and environmental impact, transparency, and accountability. By applying the responsible AI (RAI) principles (see Deep Dive Box) principles to their (Gen)AI strategies, health insurers can lead the way toward the effective and sustainable use of (Gen)AI, even in applications sensitive to data protection.

Key policy statements for health insurers

- Strictly adhere to country-specific regulations for the safe handling and storage of sensitive data, particularly health records.
- Maintain detailed documentation of data usage and algorithms, and implement robust end-to-end audit systems and training.
- Conduct thorough compliance stress tests, focus on choosing reliable partners, and secure data hosting procedures.

Deep Dive Box

Seven key principles for RAI guidelines

1. **Accountability.** Assign leadership roles and diverse teams to design and lead an RAI program.
2. **Transparency and explainability.** Create clear guidelines for both the use and non-use of (Gen)AI.
3. **Data and privacy governance.** Conduct privacy/security assessments with generated data and establish high data-protection and security standards.
4. **Fairness and equity.** Take measures to continuously mitigate bias in the data.
5. **Safety, security, and robustness.** Establish control mechanisms, including a workaround for cases with no clear-cut answer in which the (Gen)AI application gets humans in the loop.
6. **Social and environmental impact.** Ensure that (Gen)AI solutions have transformative impacts without unintentionally harming people, communities, or company values.
7. **Humans and AI.** Define roles and responsibilities, establish a mechanism for review and compliance, create escalation paths for reporting concerns, and ensure accountability.

How can health insurers leverage and scale the benefits?

Health insurers can achieve a robust and impactful (Gen)AI implementation by following these three key steps:

1 **Enable initial insights.** Start by strategically positioning a company as a north star, as a pioneer in the field. During this phase, only minor adjustments to an organization's structure and staff skills are needed to support the proof of concept. Since scalability is not yet a priority, the basic technology remains largely unaffected. At this stage, insurers can already begin preparing a policy for the responsible use of (Gen)AI.

2 **Boost efficiency and effectiveness.** In the second phase, focus on enhancing the efficiency and effectiveness of the proof of concept based on the initial experience gained. This is the time to review and adjust the strategy, gradually build up and adapt personnel requirements, and establish a scalable data infrastructure. Refine the policy guidelines as the project progresses.

3 **Focus on scaling.** The final phase involves fine-tuning of the business strategy to support large-scale operations. The organization should now concentrate on recruiting and/or training (Gen)AI talents to achieve economies of scale. Technological efforts should focus on creating scalable solutions across the organization. Policy development should be advanced enough to include rules for approval and external access, ensuring (Gen)AI usage.

By following these steps, a health insurer can define a comprehensive long-term vision and evolve into a (Gen)AI-driven company.

> **Transformative (Gen)AI steps can begin within six months—successfully implementing applications initially regardless of technology and data setup.**

(Gen)AI is about to transform health insurance, dramatically boosting operational efficiency and delivering remarkable health and financial improvements. Insurers can witness impressive results within just a few months, paving the way for widespread adoption and immediate benefits. To harness the full potential of (Gen)AI, insurers need a savvy strategy that targets quick wins and selects applications based on business needs and technical readiness, all while safeguarding privacy and security. Scaling (Gen)AI involves a dynamic operating model focused on strategic alignment, organizational agility, technological advancement, and responsible AI practices, empowering insurers to tackle preventable health care costs and unlock substantial gains.

Endnotes

1 | The capabilities mentioned here are primarily based on GenAI, but of course build on the basic AI capabilities.

2 | Shrank WH, Rogstad TL, and Parekh N, "Waste in the US Health Care System: Estimated Costs and Potential for Savings," JAMA. 2019;322(15):1501–1509. doi:10.1001/jama.2019.13978.

As a leader, do you feel ready to harness the potential of (Gen)AI?

Is your organization poised to embark on the (Gen)AI journey?

(Gen)AI has the potential to enhance operational efficiency by up to 50% and address the reduction of 25% of preventable health care costs. Get started now and realize initial benefits within just months.

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