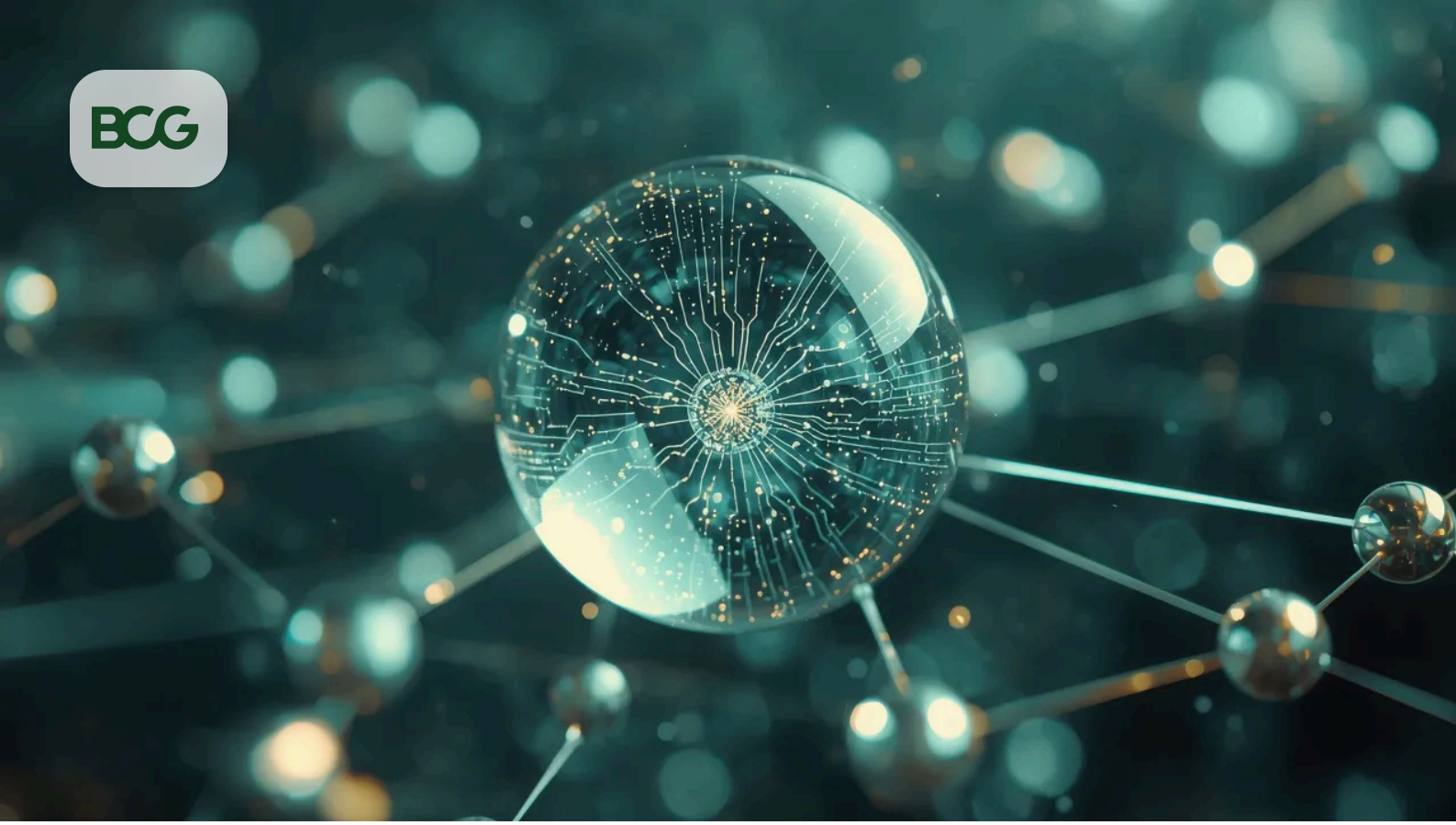

ARTIFICIAL INTELLIGENCE

Agentic AI's Advantage for Health Insurers: Faster Decisions, Lower Costs, Better Care

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The health insurance industry faces structural challenges—some severe. The most pressing of these are rising demand, case volumes, and costs; an aging workforce; and the need to improve service and care. AI, and specifically AI agents, offer insurers a potential win-win-win.

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AI agents, which don't just assist but can complete workflows autonomously, provide a path to faster decision making, lower costs, and better patient care. Agents can reshape core operations and processes, not by cutting headcount but by automating routine processes and redirecting human expertise to where it creates the greatest value.

It's not only about technology. Insurers that move now to embrace both agents and an enhanced, human-agentic operating model will be able to differentiate through personalization at scale in service and care management. They will set a new operating standard for the industry while those that wait will be slowed by structural disadvantage.

A Quietly Developing Crisis—and a Big Opportunity

Challenges and opportunities vary by region, market, and company, but health insurers around the world face common issues. Case volumes and associated costs are rising due to aging populations, the growing burden of chronic diseases, costly innovation in medical treatments, and an expanding need for new types of benefits. In many markets, demand is increasing for private insurance that augments, or in some instances replaces, public-sector programs. At the same time, insurers are hemorrhaging expertise: many payers will lose 30% to 50% of their experienced workforce to retirement over the next decade, with customer-facing and operations roles disproportionately affected.

The threat is twofold. One danger is a structural inability to meet growing demand. The other is that rising costs erode margins and the ability to improve care. Personnel expense (which includes things like benefits) dominates spending in health insurance administration. Most administrative workforce effort is concentrated in manual claims processing, enrollment, and benefit verification. The incremental gains from classic efficiency levers, such as specialized service centers, customer service centers, rule-based process automation, outsourcing, and offshore processing, are diminishing.

The news is not all negative. Insurers have a big opportunity to differentiate in-patient support and services. Claims cost management today is focused on waste, fraud, and abuse rather than on prevention and developing ideal patient pathways. BCG research indicates that two-thirds of patients want personalized support, including decision assistance with medical questions and advice that supports healthy day-to-day activities. Our client experience has shown big benefits for those that get it right: customer retention increases of as much as 14 percentage points and up to 70% reductions in claims costs.

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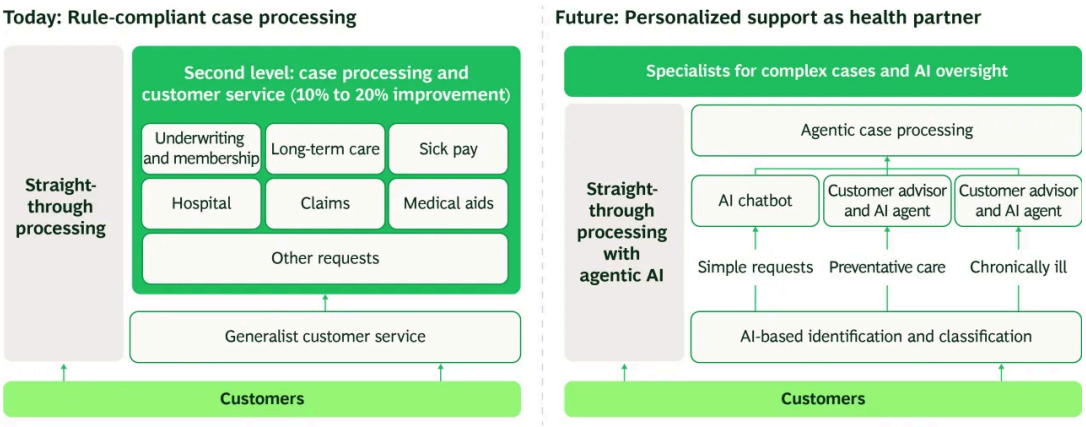
Agents to the Rescue

These are not simple productivity problems. Insurers need a new operating model built for today's marketplace. Rule-based tools—the basis of lean process management and digital automation—are the best for creating predictable, fully structured processes. But most of today's insurance workflows involve judgment, unstructured information, and the need to handle exceptions that traditional automation cannot manage. The result is that many payers have a patchwork of automation islands whose effectiveness is constrained by persistent manual chokepoints.

Agentic AI offers a different solution. With an AI-first insurer, agents analyze data and suggest next best actions. Human supervisors oversee AI and function as specialists for complex cases that require careful judgment. (See Exhibit 1.) They focus on the highest value-adding services, providing personalized support for customers that is tailored to their individual health situations and steering patients toward the best pathways. They provide support in areas such as prevention and healthy living. In this type of system, insurers can build a competitive edge with customers while efficiently tackling routine administrative and claims tasks. The result is a fundamental shift from a rule-compliant processing factory to a personalized health partner.

EXHIBIT 1

AI Agents Can Fully Automate Simple Case Processing and Provide Support for Personalized Customer Service and Care



Source: BCG analysis.

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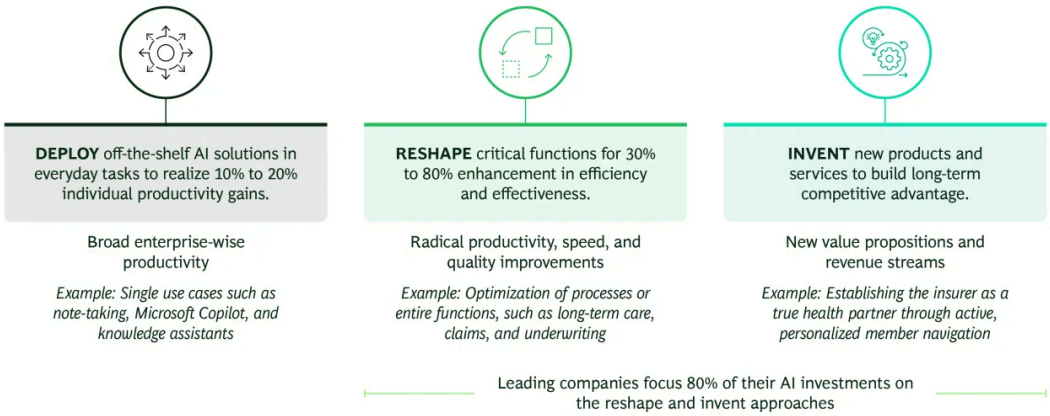
There are three approaches to agentic AI transformation (see Exhibit 2):

- **Deploy** off-the-shelf AI solutions in everyday tasks.
- **Reshape** critical functions.
- **Invent** new products and services.

EXHIBIT 2

Sustainable AI Value Emerges from Radical Process Transformation



Source: BCG analysis.

Most insurers are already deploying AI tools such as note-taking assistants, document summarization, and knowledge retrieval across the organization to increase individual efficiency. Typical gains are 10% to 20% per employee, but these results are scattered and uneven.

In the reshape approach, companies reorganize processes into agentic workflows that can be automated end to end. Efficiency gains range from 30% to 80%, depending on the starting point.

The third approach, invent, involves reimagining the role of health insurance and positioning the insurer as health partner, improving care pathways and providing personalized plans for prevention. The impact of this extends well beyond operations and administrative costs to better care, enhanced claims efficiency, and improved customer satisfaction.

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As companies progress through the three phases of the transformation, the question moves from How do we automate more steps? to How do we automate entire functions and processes, including the parts with multiple inputs in different formats? Agentic AI enables a shift from step-level automation to process-level automation. Eighty percent of leading companies concentrate their AI investments in the reshape and invent approaches.

Reshaping Core Operations: What Changes, and How

Based on our work with multiple health insurers, we see five major process types where agentic AI can have a material impact: claims reimbursement, member enrollment and eligibility, care approvals, benefits administration, and waste, fraud, and abuse detection.

Claims Reimbursement. Agents take over managing document intake and classification, data extraction from unstructured sources, checking eligibility and deductibility, detecting duplicates, and generating decision proposals. Between 60% and 80% of the process can be automated. Humans concentrate on validating rejections and handling complex or disputed cases.

Member Enrollment and Eligibility. Agents check application completion, verify income and family status, determine rule-based eligibility, and follow up on missing documents. Here too, 60% to 80% of the process can be automated. Human staff handles individual assessment for unclear cases and final enrollment confirmation.

Care Approvals. Between 40% and 60% of this process can be automated, with agents matching clinical criteria, looking up provider data, classifying urgency, and generating proposals for approval or referral. Humans remain in charge of personal consultation, medical judgment for borderline cases, and handling appeals.

Benefits Administration. Agents handle calculating benefit entitlement, determining payment triggers, detecting duplicates and fraud, and handling member communication. Humans focus on audit sampling, governance oversight, and policy updates. The process can be 60% to 70% automated.

Fraud, Waste, and Abuse Detection. Agents manage document collection, follow up on missing information, and extract and normalize medical information (such as coding, duration, and materials). They also enrich each dossier by consolidating the patient's claims history according to pathology and benchmarking treatment pathways against clinical guidelines. They flag overtreatment, overcharging, and contract abuse, ranking each instance by certainty and value and suggesting next best actions for specialist review. Between 40% and 70% of the investigation

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workflow can be automated. Human specialists focus on case confirmation, challenging providers when necessary, and negotiation.

How Agents Are Assisting One Insurer

Consider the example of a major European insurer. In its claims reimbursement function (which is structurally identical to the deductible and copay reimbursement processes in other markets), agentic AI reduced the end-to-end claim-processing time from between 30 to 60 minutes to between 2 to 4 minutes. Manual processes were slowed by the cases that arrived in unstructured formats (about one-third of the total), creating persistent bottlenecks and capacity overflows that led to a backlog of several weeks. AI takes those cases in stride. The automated workflow consolidates document intake, data extraction, eligibility checks, and decision proposals into an agentic workflow, with human specialists intervening only in non-standard cases. Embedded in the same workflow, agents monitoring waste, fraud, and abuse normalize medical coding, consolidate each patient's claims history by pathology, and evaluate treatment against clinical guidelines, noting ranked anomalies and suggesting next-best actions to investigators. Human staff serve as specialists, validating rejections, acting on waste, fraud, and abuse warnings, and monitoring system performance. Across the portfolio, the insurer reduced claims leakage by 3% to 5% of total payout. Moreover, once built, the same AI architecture could be reused in other processes with significantly reduced incremental effort for adaptation.

A New Model for Care

In each of the transformation approaches, the efficiency gains and the transition from insurer to health partner run on the same agentic foundation. The technology is new, but the bigger change is in the operating model as processes are adapted and jobs evolve. Some human roles are replaced by automation, but others shift from transaction processing to specialist expertise, quality assurance, and AI governance.

Overall, the insurer transforms from reactive cost reimbursor to active health partner, enabled by freed capacity and richer data from automated processes. Companies manage their workforce transition much differently than they would have otherwise. Many manual processing roles disappear, and organizations build capacity in the areas where human judgment adds unique value. Two distinct expert functions are particularly important.

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Specialists and AI Governors. Experienced staff shift from transaction processing to handling the cases that genuinely require human judgment, such as complex appeals, borderline clinical decisions, and fraud patterns that don't fit known signatures. This is in addition to governing the agentic system itself. That role involves updating rule sets, monitoring decision quality, identifying reductions in accuracy or performance (known as "drift"), and managing regulatory documentation.

Companies will organize governance in one of two ways, depending on process requirements. One approach involves full supervision. This means every decision is reviewed by a human specialist before it leaves the organization. The second approach is more strategic. Specialists monitor system performance, conduct quality sampling, and maintain and update the rules that govern agent behavior. How governance for each process is structured will depend on local and regional regulatory requirements and internal risk appetite (for example, setting monetary thresholds for automatic approvals and payout or reviewing every rejection and denial). The overriding priorities are to guarantee the correctness of decisions and ensure that critical or unclear cases receive human review.

Personalized Member Engagement. Freed from administrative load, insurers can be the health partners they have long aspired to be. For members with chronic conditions or acute health events, this means having a dedicated contact who understands the member's full clinical history, guides them through care pathways, coordinates among providers, and ensures they receive the benefits they're entitled to. BCG experience shows that members who receive this kind of active case support show significantly higher treatment adherence and have lower downstream claims costs.

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Healthy members receive active outreach at key life moments, such as pregnancy, a new diagnosis, or returning to work after an illness, with relevant, personalized guidance and timely advice tied to the member's specific situation.

Regardless of member health status, agents facilitate the service that is delivered by humans. The agent identifies a prioritized list of members who need attention, ranked by urgency, complexity, and intervention potential. Before each member interaction, an agent compiles a 360-degree overview, including claims history, open cases, recent provider contacts, benefit utilization, and any anomalies.

During the conversation, the agent proposes next-best actions in real time, such as a referral to a specialist, a reminder about an unused benefit, or an alert about a potential drug interaction.

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Afterwards, the agent handles documentation, follow-up triggers, and case updates so the human can focus entirely on the next member. The result is a member experience that feels personal rather than transactional and an operating model that deploys human empathy where it matters most.

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New roles for human staff will also emerge. For example, AI operations specialists may transition to designing agentic workflows, and process quality governors could oversee AI results, managing them for accuracy and absence of AI bias. Designers of human-AI interaction may end up designing the user interface and experience for process quality governors and customer-facing AI-interactions (such as call agents).

How to Get It Right

Embedding agentic AI is much more an organizational than a technological challenge. Both our research and our experience across numerous large-scale AI transformations confirm that success follows what we call the 10-20-70 rule: roughly 10% of the work lies in AI applications and algorithms, 20% in technology and data, and 70% in people, organization, and processes. (See Exhibit 3.)

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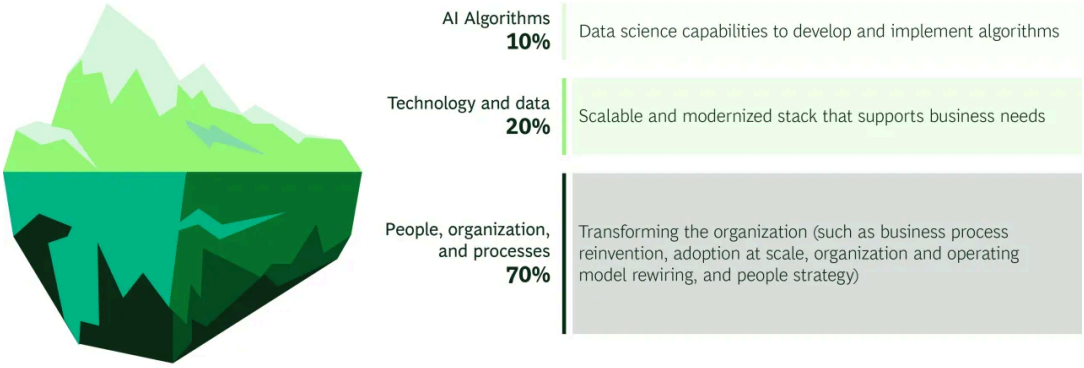
EXHIBIT 3

To Become an AI-first Organization, Payers Should Focus on a 10-20-70 Approach

10-20-70 model
Share of focus or effort to ensure transformation success



Source: BCG analysis.

The organizations that get this ratio right will be the ones that transform fastest and sustain their advantage longest. Five critical elements will guide the AI-leaders and separate them from companies that remain stuck in pilots:

- **Lighthouse Examples.** Start with a few easy wins that point the way to future success. Prioritize processes with high manual intensity, clear rules, and high reusability, such as claims reimbursement and enrollment. These are almost universal strong starting points that will bring about quick results as a proof point and build acceptance in the organization.
- **Architecture.** Choose a composable, platform-based approach over individual solutions. This involves more initial investment but offers full control, reduces dependence on a single vendor, and is replicable across processes and partnerships.
- **Human Oversight.** Define up front which decisions require human validation based on regulatory requirements and individual appetite for risk and build this into the architecture from the beginning.
- **Regulatory Readiness.** In more stringently regulated markets, many claims and eligibility processes qualify as high-risk AI under emerging frameworks (such as the EU's AI Act). Governance, auditability, and documentation requirements must be integrated from day one. Preemptive interaction with regulatory authorities should focus on highlighting the risks and the built-in mitigation measures early on. Don't think about individual use cases and involve regulators early in platform-level design decisions.
- **Change Management.** The workforce transition is as important as the technical build-out. Involve staff early as co-designers of the new processes (especially caseworkers whose expertise shapes how cases are handled), invest in upskilling, and measure both efficiency gains and employee experience satisfaction.

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Agentic AI in health insurance is no longer experimental. Early movers are already compounding their advantage, and the gap between these companies and later followers is widening. Late adopters won't be locked out, but they will pay more, make slower progress, and find themselves playing catch-up with a moving target.

The key to success: design for humans from the start. The organizations that succeed won't be those that automate the most but those that best redirect human expertise to where it creates irreplaceable value.

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