NTT DATA Services

WHITE PAPER | HEALTHCARE | ENTERPRISE APPLICATION SERVICES

Public, Private Health Payers Can Reduce Risk With Model Office Concept

New administrative platforms and care models create uncertainty. Learn to anticipate the effects of change and make informed IT investments.

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NTT DATA

Health insurers worldwide need to replace antiquated systems without disrupting operations

Health insurance payers have some of the most complex administrative systems in the business world. Whether the payer is a nationwide public system or a small, private health plan, the back-end systems used to track members, process claims and manage provider data must be able to adapt to a wide variety of functions and variations in the rules used to process transactions.

The U.S. system is particularly complex, with the average health plan offering dozens of different insurance products, each requiring a unique set of business rules to process claims. Within an insurance product, employers (who sponsor the insurance and subsidize the premiums) may ask for specific coverage variations for their covered employees. This creates a complex and frequently changing set of business rules within the claims payment process. Government payers also have high levels of complexity, often incorporating point of service (POS) payments, retroactive personal liability reconciliation and multiple benefit programs with different structures.

Further complicating matters, these same private and government plans may have numerous provider networks that are tied to the various insurance products and contracts, with some but not all contracts allowing out-of-network services to be partially reimbursed. Pay for performance and value-based contracts, whether through a private or government plan, add yet another variation to claims processing.

Paying a claim means running it through a rules engine that is specific to each member/provider combination to achieve a payment for the provider that meets all the business rules for the coverage owned by the member. This is perhaps one of the most complex business transaction systems of any industry.

But the U.S. is not the only complex system. Medicare Australia, for example, has its own complexities, with certain classes of beneficiaries receiving different coverage. Australia, along with many other countries that provide single-payer coverage, also has a private health insurance market. Although it's more rational and less byzantine than the U.S. market, it has its own unique challenges in the processing of reimbursement for care, whether to the clinician, facility, insurer or patient.

So, public or private, health insurance plans across the globe have intense requirements for their administrative systems.

Within this complex framework, health insurance plans also grapple with a variety of challenges, including:

- Antiquated claims systems and IT platforms that need modernization or replacement.
- A global healthcare system in flux and the need to transition reimbursement systems from fee-for-service payments to value-based reimbursements that incentivize more effective care and lower cost approaches.
- A business that deeply affects the lives of individuals and the need to maintain seamless operations in the face of the radical changes anticipated.
- A growing recognition that social determinants of health (SDOH) play an even greater role than the medical care system in determining a person's overall health.

Perhaps the biggest challenge that health insurers face is reducing the risk of disruption of care as they move to platforms and applications that will better equip them for the future.

Designing, configuring and implementing health insurance administrative systems is mission critical not only to providers and the patients they serve, but equally to the organizations that provide for and administer the funding of healthcare. Increasingly, these systems need to integrate clinical data to facilitate better understanding of patient outcomes and the relative value of services, treatments and providers.

They also must integrate with systems that capture non-traditional data, such as behavioral health information, personal activity measurement and customer relationship management systems. Although not used in the claims process, non-traditional data is integral to population health management and providing a satisfying member experience. Public and private payers alike have a strong interest in both functions, as they have the potential to improve patient outcomes and lower healthcare costs.

Beyond processing current transactions and measuring the value of care, health plans need the ability to configure new models of care and forecast the effects of those models before they make policy changes. Plans must be able to measure the effects once changes are made, and to fine-tune policies to better fit the needs of patients and providers.

Perhaps the biggest challenge that health insurers face is reducing the risk of disruption of care as they move to platforms and applications that will better equip them for the future. Finding a way to reduce the risk will help health plans move rapidly and successfully toward a more modern approach to providing and paying for care.

Modernizing and future-proofing insurance systems will be complex

The need to keep the lights on and systems running while they transition to more modern platforms will be key to successfully overcoming the other challenges that health plans face. What makes modernization more difficult is the spiderweb of complex legacy systems in place in many insurance operations. It's not simply a matter of moving operations from one platform to another. Rather, it's more like uniting a dozen little fiefdoms, each with its own language and customs, into one collaborative entity and aligning them for the good of the individual citizen or customer while each continues to serve its specific mission.

The legacy applications come with unique processes, and replacing them requires redesigning internal processes to fit the new, unified model.

Given the complexity of the change, health insurers, providers, patients and political leaders all have a stake in seeing that new administrative systems are carefully tested and vetted before they go live. In the case of public systems, major changes can carry deep political consequences for those involved.

And as health insurers modernize care delivery and payment schemes, they will need a way to test various business rules and models of care before changing policies to avoid disruption for patients and providers. They will also need to create a methodology to monitor policy changes to enable fine-tuning and improvement as they gain real-world experience with the new models.

With the complexity of these systems and the need to avoid disruption in mind, NTT DATA designed a creative use of the model office concept specifically intended to do two things. First, we wanted to test the ability of a claims platform to efficiently serve current needs. Second, we wanted to be able to test how changes in business rules and models of care would affect a range of stakeholders, including members, providers, different government entities and a health insurer's bottom line.

To develop the test environment we envisioned, we drew on NTT DATA staff expertise from Australia, the Netherlands, India, the Gulf States and the U.S. This global team gave us insights into the wide variety of healthcare payer needs that our model would need to accommodate, as well as ideas from different perspectives.

We used an agile methodology to design, test, refine and retest our approach. This helped us quickly develop a platform that would test both current transactional abilities and provide a way to test proposed changes to business rules and models of care.

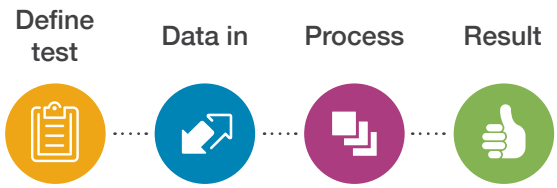
Data-based evidence helps decision makers choose wisely

A typical model office involves setting up a version of the proposed software and testing it for functional capabilities. For example, can the system be configured to accurately adjudicate a claim based on the contracts provided? This can confirm the platform does what the base set of requirements define as the need. It also protects against system and implementation failure.

Testing of this sort is extremely useful for health plans that are intending to replace their claims processing platform. By testing the proposed platform using real-world claims examples, the health plan can make an informed decision, reducing the risk of choosing an incompatible system and increasing its ability to choose a system that meets the needs of all stakeholders.

No one wants to be the person who threw the health plan into chaos and alienated members and providers by disrupting delivery and quality of care or delaying reimbursements. By providing data-based evidence of performance, the NTT DATA Health Plan Model Office can help decision makers clearly see the pros and cons of their options.

No one wants to be the person who threw the health plan into chaos and alienated members and providers by disrupting delivery and quality of care or delaying reimbursements. The board of directors (for private plans) or the opposing political party (for public plans) can be brutal when things don't go as planned. The severity of consequences for decision makers who go wrong can slow the process significantly. By providing data-based evidence of performance, the NTT DATA Health Plan Model Office can help decision makers clearly see the pros and cons of their options.



Testing the capabilities of an administrative platform or application is straight forward and can reveal any weaknesses in a proposed investment.

In our most recent Health Plan Model Office build, using Oracle Health Insurance (a commercial, off-the-shelf claims software), we tested 47 scenarios in six domains, each testing specific business rules that were unique to a scenario. Below are the six domains, with examples of the scenarios tested:

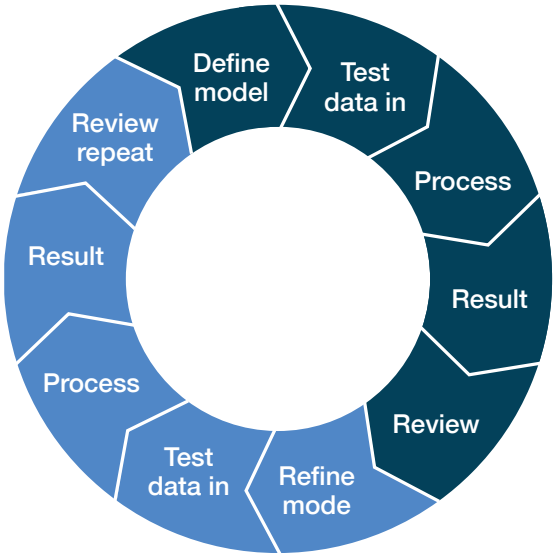
- Veterans. We tested variations in coverage and provider reimbursement when services are related to a veteran's disability.
- Medical. We tested scenarios lodging medical claims with payments that vary based on type of provider, type of member and details of contracts (such as bundled services versus fee-for-service payments).
- Mental health. We tested variations based on type of services provided.
- Pharmacy. We tested scenarios based on variations in member co-pay and out-of-pocket threshold.
- Pathology. We tested scenarios involving prior authorization requirements, repeat tests and limitations on payment when multiple labs are ordered.

Using the Health Plan Model Office to test changes prior to implementation is like testing a pilot's skill in a simulator instead of testing the pilot during a real flight with passengers (health plan members) aboard.

Future-proofing by testing the adaptability of a system

Decision makers are sensitive to the concept of future-proofing their operations. They want to choose a system that is robust and flexible enough to adapt to changing models of care and to accommodate new, as-yet-unknown, functionality that may be needed.

Our approach goes one step further than the typical model office. We use the model as not only a test of a system's capabilities but also a "what-if" simulator, so payers can test how different changes in policy or contract impact specific stakeholders.



Testing a proposed policy change allows you to repeatedly test and refine the policy before final adoption.

This type of model office testing is best suited to rules-based platforms, where the capability of creating new rules (and testing new policies) can be pushed to the business users rather than requiring special coding or configuration. It also better supports testing integration with a wider range of diverse external platforms, because integration points can be simulated more thoroughly — including the testing of the integration.

The Health Plan Model Office enables us to test new models of care, both to better understand the effects of new policies and to test the ability of a given system to adapt. It becomes an analysis tool for policy change impact evaluation as well as a tool to understand the capabilities of the system as care delivery models change.

Using the Health Plan Model Office to test changes prior to implementation is like testing a pilot's skill in a simulator instead of testing the pilot during a real flight with passengers (health plan members) aboard. If the pilot makes an error in a simulated flight, the flight can be re-flown without a negative impact on the plane, crew or passengers. Although policy mistakes aren't as devastating to individuals as a plane crash, there is potential for real harm to real patients in implementing untested policy changes.

This approach could be useful, for example, if a plan has been contracting on a fee-for-service basis but wants to adopt a bundled payment system for certain treatments or procedures, or perhaps a capitated system for primary care.

Using our concept, a health plan could use historical claims data to test various iterations of a claims rules engine to look at how a new payment scheme would affect all the stakeholders: patients, providers and the health plan itself. We can also introduce additional data sources into the modeling process, such as clinical data, to evaluate patient outcomes against the payment and business rule care models.

In the process of doing so, we can test the adaptability of a given platform and its ability to integrate disparate data sources.

As the core data set of what is captured in the claims process changes, such as adding patient diagnosis or length of stay, we can provide greater decision-making power to guide policy changes. Understanding the impact of secondary data sources, or changes in the core claims data set, provides additional forecasting and business change flexibility.

How might these insights affect policy changes? If, for instance, the payer discovered that a proposed payment system would hurt providers who produce the best patient outcomes (and therefore lower the longer term costs of care for each patient) it could refine the system to prevent that outcome. Or, if the payer discovered that new rules would increase out-of-pocket costs for patients (and thereby discourage certain preventive-care services) it might want to revisit those plans.

Financial incentives and policies about how care is delivered can profoundly influence patient and provider behavior in ways that can affect both the quality and the cost of care. To ensure the best outcomes and the best value from healthcare funds, insurers need a way to proactively test and then monitor policy changes.

Conclusion

As health insurers move into a future that is both complex and uncertain, they will need to modernize the intricate web of applications currently in use. But that change won't be easy. Decision makers need tools to help them make wise decisions about IT investments, and the Health Plan Model Office approach can help them have confidence in their decisions.

And as health insurers modernize care delivery, this approach can also help decision makers test new policies and avoid disruption for patients and providers.

Let's get started

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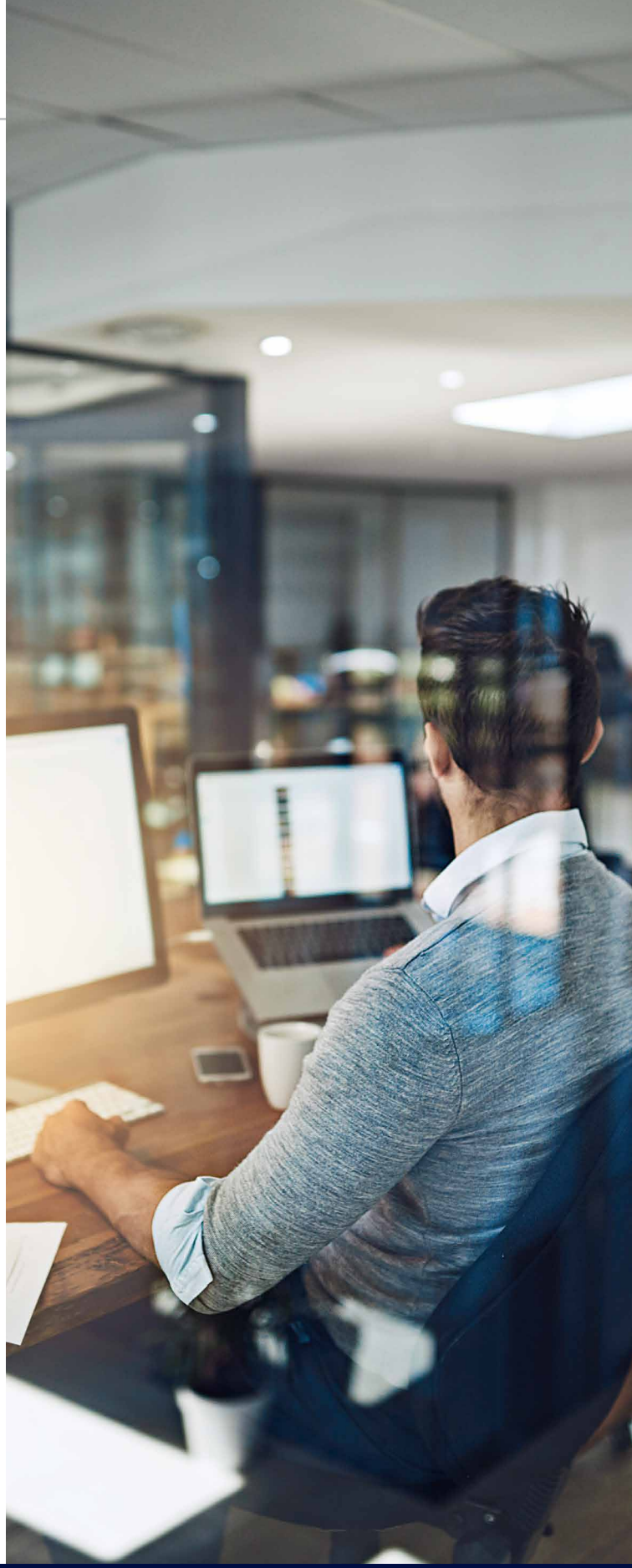

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