



PBS ONLINE INITIATIVE

2005 COMPUTERWORLD HONORS CASE STUDY

GOVERNMENT & NON-PROFIT ORGANIZATIONS

AN ONLINE CHANNEL FOR PHARMACIES TO CLAIM THEIR SUBSIDIES FROM THE AUSTRALIAN GOVERNMENT SUCCEEDS BY INTEGRATING PHARMACY AND GOVERNMENT BUSINESS PROCESSES, AND CREATING NEW COST-SAVING EFFICIENCIES FOR BOTH. [20055397]

A Search for New Services



Robert Carrigan,
Chairman of the Chairmen's Committee

Ron Milton,
Vice-Chairman of the Chairmen's Committee

Dan Morrow,
Chief Historian

SUMMARY

Paying for the subsidised medications provided to Australian residents by the Australian Government has always required complex and costly administrative arrangements between pharmacies and Government. Now the PBS Online initiative has applied information technology to combine the business of pharmacy with the administration of Government. Whilst implementing an online channel for pharmacies to claim their subsidies from the Government, PBS Online has implemented a business model which integrates pharmacy and government business processes. The result is yielding efficiencies for both pharmacies and Government.

APPLICATION

An essential part of the Australian health system is the availability to all Australian residents of Government-subsidised prescription medicines, under the Pharmaceutical Benefits Scheme (PBS). When consumers present a prescription at a pharmacy, they pay much less than the full cost of the medication if it is within the PBS. The Government covers the rest, on average 80% of the cost of the medicine. This amount is reimbursed to the pharmacy. Pharmacies rely heavily on these Government payments, typically 60-80% of their business coming from this source.

The PBS is regarded as a world class program for providing access to subsidised medications. However, the PBS is a huge budgetary program for the Australian Government, and costs have been rising rapidly. In 2003-2004, the Government paid out Australian \$5.6 billion for PBS medicines. In the last decade this cost grew at 12.7% per annum, making the PBS the fastest growing part of the national budget. Unsustainable increases in costs threaten the principle of subsidising medicines for the entire population. Reducing costs contributes to continuing universal health care for Australians. The PBS is administered by the Australian Health Insurance Commission (HIC), the Government agency responsible for paying out Government funds to healthcare providers. In order to receive their payments, pharmacists lodge regular claims with HIC containing details of all PBS medications supplied to consumers.

HIC has been seeking to control PBS costs without sacrificing outcomes. There are two areas of costs which HIC is able to affect: administrative costs, and ensuring PBS medicines are only supplied to the right people and at the right price.

These goals could not be achieved with existing systems and processes for administering the PBS, which were inflexible, dependent on manual intervention, and which made precise control over amounts paid out hard for HIC and pharmacies. For pharmacies, the process to claim re-imbursements for medicines dispensed has been an administrative burden.

The opportunity is apparent for an online channel to improve speed, reduce data input work, and allow some administrative checks at the front-end. However, HIC had to innovate to make a difference for pharmacies, producing something pharmacies would use because it delivered efficiencies for their business as well as the Government.

Pharmacies are typically busy small businesses. They face increased competition from online medication providers, and the possibility of supermarket-based pharmacy in future years. Most of all, a more active role is envisaged for pharmacists in sickness prevention, meaning the need to be free to focus on their professional responsibilities.

HIC launched the PBS Online initiative not only as an online channel for pharmacies to claim their reimbursements, but also to introduce a new business model for the interaction of pharmacy and the Government. Instead of Government obligations being an additional task requiring dedicated effort by pharmacies, PBS Online has implemented a business model which embeds HIC systems and processes into pharmacists' real-time business.

The business model exploited the fact that pharmacies already record each dispense of a medicine in a local dispensing system. HIC worked with commercial vendors of pharmacy dispensing systems to

integrate automatic claiming functionality into their products. Now, the dispensing system generates a claim as each item is dispensed, a claim which is transmitted to HIC, checked, and the outcome returned to the pharmacy in real-time. Government processes are now taking place in the background of the commercial transaction. The pharmacy gains from reduced administration and faster payments; and the Government strengthens its control over payments for PBS medicines.

HIC, with delivery partner Accenture, released PBS Online on schedule to a pilot in September 2004, and it has been used since that time by 66 pharmacies. Whilst it is too early to assess savings, as of January 2005 384,636 prescriptions have been successfully submitted online, and payments made to participating pharmacies of Australian \$53 million.

BENEFITS

PBS Online has been designed to save money for the Government by saving money for pharmacies. Pharmacies use a product which delivers operational and financial improvements, and Government gains improved control over PBS expenditure as well as administrative savings.

Pharmacies already record each dispense of a prescription medicine in their dispensing systems, to manage stocks, track patient history, and price the medicine. PBS Online integrates with these systems; the data the pharmacy is already entering is now transmitted to the HIC as a claim at the time the medicine is provided to the customer. In real-time, HIC performs its administrative checks and notifies the pharmacy of the correct price for the medicine, or of any errors. Previously, if any claimed prescriptions were rejected by HIC's assessment, pharmacies would only be notified days or weeks after the event, requiring significant effort in correction and re-submission. Now the real-time assessment notifies of any rejected prescriptions right away, allowing the pharmacist to correct errors with the customer and medicine information at hand. With this new business model, Government administration takes place in the background of a commercial transaction, and the pharmacist spends less effort in the claiming process.

The real-time assessment also provides pharmacies with certainty of how much HIC will pay them for supplying a medication. Previously, pharmacies supplied medicines 'on good faith', trusting that their local systems' assessment of the re-imburement amount were correct. Now they have the confidence of knowing immediately of what they will earn from each transaction.

Financially, the lag for a pharmacist between supplying a medication and receiving the payment for that medication was formerly up to 49 days; the constant claiming under the new model has reduced this lag to an average of 11 days, improving pharmacy cash flow. Pharmacies have indicated that this cash flow benefit is the main incentive to use PBS Online.

For the Government, the new business model controls expenditure on PBS medications. Under the PBS some citizens, such as those on welfare or aged pensioners, are entitled to an even higher concession on their medicines. Continued access to these concessions by those whose entitlement has lapsed has been a serious cost leakage for the PBS. The real-time assessments are able to detect and prevent a person trying to purchase a medicine on a concessional rate to which they are not eligible – such as someone who is no longer unemployed. It is estimated that reducing ineligible access to concessional medicines will produce substantial savings and a significant contribution to the sustainability of the PBS.

By the same mechanism, the other complex medicine pricing rules of the PBS can also be enforced. The price of a medicine is calculated and communicated to the pharmacy as the transaction happens, ensuring the customer and the Government pay their shares according to the rules of the PBS.

The scope of PBS Online also involved the replacement of HIC's back end PBS claim processing system. Together with the online channel and efficiencies of the new business model, the improvement in claim assessment and processing and the replacement of operator screens are expected to enable significant administrative efficiencies for HIC.

PBS Online should also be a source of wider progress for the Australian health system. By reducing administrative effort, PBS Online should contribute to freeing pharmacists to focus on higher-value professional activities of playing a larger role in health promotion. The IT investments which pharmacies are making so as to use PBS Online will ease the implementation of future e-health initiatives such as electronic health records and electronic transmission of prescriptions between doctor and pharmacist.

IMPORTANCE

Technology is the foundation of PBS Online. Technology has enabled the automation of much of the subsidy claiming process for PBS medicines, with the resulting potential for efficiencies. However, information technology has enabled PBS Online to be more than just process automation for a Government agency. Information technology has made possible a business change which aligns the interests of pharmacy and Government, altering how Government does business with pharmacies to

realize efficiency for the pharmacy and improved compliance for Government. Technology provides the means to change when and how things happen in a business process, and even who does what – in this case equipping the pharmacist to do more to enforce compliance with the PBS.

PBS Online took advantage of both proven and new technologies. The assessing functionality and back-end screens were developed in the proven J2EE architecture. HIC has an existing skill base in Java which reduced the risk of the custom build. The claim processing, application integration, and channel management functionality meanwhile used the commercial webMethods EAI product and utilized the emerging technology of web services.

PBS Online demonstrates how technology can connect the health sector. The working of the whole system requires regular exchange of data between several health sector and government agents. As well as pharmacies and HIC, other organizations involved are HeSA (the registration authority for Public Key Infrastructure(PKI)), Securenet (the PKI certificate authority), the welfare payments agency Centrelink (for concessional entitlement information), and data feeds to Australia's Department of Health and Ageing and Department of Veterans' Affairs.

ORIGINALITY

PBS Online is the world's first national system allowing pharmacists to claim online for re-imburement of subsidies for medications. However, the originality of the system really lies in the innovation in how pharmacies and Government interact. From the pharmacy perspective, PBS Online integrates the pharmacy's administrative responsibilities into their daily business. From the Government perspective, PBS Online embeds Government administration into the background of a high-volume retail process and allows the pharmacist to be a monitor of compliance on the Government's behalf.

The actual product which the pharmacy uses within PBS Online is still their existing dispensing software, rather than a web browser or other additional product. Achieving this integration required collaboration between HIC and commercial software vendors. HIC provided an application programming interface and components to vendors to integrate into their products. Whilst HIC has collaborated with vendors before, collaboration between private and public sectors to mutually deliver eGovernment capability remains the exception.

For HIC, PBS Online also marked a new technological direction as it introduced web services into the agency. Web services are a part of HIC's strategic information technology direction, and PBS Online has led the way within HIC in implementing this new technology.

SUCCESS

PBS Online was first implemented in a pilot release to pharmacies in September 2004, on-time and on budget. The project had originally been envisaged for delivery in 2005, but was successfully brought forward in order to meet a Government requirement to implement improved entitlement checking for people purchasing PBS medicines at concessional rates. HIC teamed with Accenture to ensure delivery of PBS Online to the new schedule.

PBS Online was able to achieve buy-in from four commercial software vendors for the initial implementation, ensuring that the functionality would be available to pharmacies. Three of these vendors were market leaders, with large pharmacy customer bases.

As of January 2005, and having just completed the pilot phase, there are 66 pharmacies using PBS Online. A total of 384,636 prescriptions have been submitted online, and payments made to pharmacies of Australian \$53 million. Pharmacies experience an average response time for the real-time assessment at the point of medication supply of less than 6 seconds. For HIC, only 2.5% of online prescriptions require intervention by an operator, compared to 3.4% for the legacy system, representing a significant reduction in operator work. In a survey of pharmacies using PBS Online, 80% reported a belief that PBS Online had improved the cash flow of their business, and only 18% reported that PBS Online was difficult to use. Of those pharmacies that had been using PBS Online for the longest period, 65% believed that PBS Online had increased the efficiency of their pharmacy, with none believing it had decreased their efficiency.

DIFFICULTY

PBS Online faced some familiar development challenges. The schedule was tight due to the decision to bring delivery forward from its original 2005 target. There was the risk associated with custom build, with deploying both to external users (pharmacies) and internal HIC users, and there were numerous dependencies for the project to manage, in particular the parallel development of a new payments system within HIC. The project plan included an iterative development approach, which coupled with disciplined project management between HIC and Accenture allowed the risks to be negotiated successfully.

To deliver functionality to pharmacies PBS Online needed to gain the buy-in of software vendors, who ultimately control access to the pharmacy user through their dispensing system products. HIC demonstrated the case for PBS Online from the viewpoint of the vendor's customers, positioning the functionality as something which would add value to the vendors' products. Coordinating the integration effort by vendors and quality assuring their products was a further challenge. The project dedicated significant effort to vendor management and formal testing of vendors' products.

The introduction of a new business model was challenging as it had to occur within legislative constraints. The project engaged with legal opinion and other Government agencies to ensure the vision of the model could be implemented. The deployment of web services into HIC's technology environment was also a particular risk, mitigated through early commencement of this effort and sharing of the investment with another major HIC project.

There was a level of specific concern from pharmacies regarding the impact upon their operations of more stringent checking of customer entitlements to concessional PBS medications. PBS Online worked to ensure it could deliver good system response times, so the check could be performed in a reasonable time, and developed practical guides for how pharmacists and customers should respond to concessional entitlement problems.

PBS Online represents a change for both pharmacies and HIC. Pharmacies have needed to make information technology investments and adapt to an increased use of technology in their business. HIC worked with vendors to implement functionality to their customers for the pilot release, and has ensured pharmacies understood their requirements to use PBS Online. The integration into their existing dispensing systems has eased the introduction compared to using a new user interface or application. Similarly, for HIC the implementation of PBS Online poses further challenges to enhance its business to support pharmacies in using a 24x7 ebusiness system, and to adjust its processing operations for the new claiming model.

PBS Online is a major innovation based on information technology, and demonstrates that government and the health sector must always be prepared for difficult adaptations and advances so as to maintain the availability of low-cost medicines for Australians.