

# Tiwi go from paper to touch screen in 12 months

By Rollo Manning

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The Tiwi Islands off the coast of Northern Australia have moved their Pharmacy service from a 1950s model to the most modern “touch screen” technology in just 12 months

An innovative pharmacy service to suit the special needs of Aborigines living in a remote island community have been developed in Australia. The opportunity came in 2000 when the Tiwi Health Board (THB) in the Northern Territory of Australia decided to improve the “quality use of medicine” (QUM) to the population it serves. The degree of pharmaceutical care given to Aboriginal Australians living in remote places had not been great during the late 1900s and the action taken by the Tiwi people in controlling their own health service created a number of precedents. Pharmacy was just one of these.



Rollo Manning



Situated 80 kilometers off the “top end” coast of Australia, the Tiwi Islands of Bathurst and Melville Islands is the home to some 2,500 Aboriginal people. The land is owned and managed by the Tiwi people through the Tiwi Land Council and since 1998 have been operating their own health service through a Government funded community controlled health board.

Tiwi people make up all of the 20 seats on the board, which is serviced by a small group of managers who develop and implement programs such as health clinics services, health promotion, youth services, early childhood intervention and health promotion.

The health status of Aboriginal Australians is poor by comparison to the “mainstream” population and although pharmaceuticals were being used, there was no evidence of improved health outcomes.

The life expectancy of these people is some 20 years below the rest of the Australian population with chronic diseases such as diabetes and renal failure prominent in the challenges facing the primary health care planners.

The Tiwi Health Board Pharmacy Project had its beginnings in 2000 during the course of an examination of the “quality use of medicines” in remote Aboriginal health clinics in the Northern Territory by the Territory Health Services. Project Manager, Rollo Manning, and Project Officer, Hannah Burchell, had a meeting with the Chief Executive of the THB, Bill Barclay; to gain an understanding of the way pharmacy was being conducted through a community controlled Aboriginal health board.



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The THB wanted to improve its pharmaceutical distribution procedures and the management of the pharmacy inventory.

There was sufficient improvement being sought in the procedures and practices that a pharmacist attached to the THB for a period seemed a possibility. The Territory Health Services and a private pharmacy were then providing a service that had failed to find a solution to many of the medicine delivery problems. There were changes being mooted to the funding mechanism being put forward to the Tiwi people by the Commonwealth Department of Health. It was agreed at this meeting that a proposal should be developed with options to establish within the THB structure a pharmacy service.

A plan was developed with the objectives stated as being to develop new standards and protocols for use in:

- Improved medication management including ordering, purchasing, storage, handling practices.
- Greater knowledge of all clinic staff in handling of medicines.
- Improved training for nurses and Aboriginal health workers in quality dispensing practices.
- Maximise potential for information technology applications.
- Maximised benefit from funding arrangements without compromising quality of patient care.
- Plan for implementation of QUM standards and protocols.



**Inside the “old church” at Ngiuu**

A visit to Darwin by Hemant Patel, Immediate Past President of the Royal Pharmaceutical Society of Great Britain gave impetus to the project. Mr. Patel was able to familiarise himself with the problems facing the Aboriginal people of the Top End of Australia, and the associated difficulties in delivering a pharmaceutical service as a part of health care reforms. He formed the view that assistance was required to determine the contribution which pharmacists could make towards the standard of health care in remote Aboriginal communities by improving the quality use of medicines, and expanding the role of pharmacy beyond a simple supply function.

John Bell, President of the Commonwealth Pharmaceutical Association, lent his support to

the project and became a consultant to the THB Pharmacy Project.

The path chosen by the THB was one of wanting to have control over its own destiny with pharmacy services and not to have to rely on third parties such as the hospitals or retail community pharmacies. The alternatives were to outsource completely, or to outsource supply and have own in house quality assurance. The decision to have own pharmacy meant a complete operation which sourced products, on forwarded them to clinics, and provided in-house quality assurance and value added services.

An Approval Number from the Health Insurance Commission was required to claim back the cost of Pharmaceutical Benefit Scheme (PBS) items from the Commonwealth once clinic registration was in place for the new funding arrangements.

It was not to be that easy. The health board had every right to own its own pharmacy.



**Ngiuu, Bathurst Island from the air**

The problem was in the eyes of the Pharmacy Guild that it was a break from tradition which said only pharmacists should own pharmacies. The NT had no such law. The Guild feared it would be “setting a precedent to Woolworths” and actually asked pharmacist Rollo Manning to own a small share in the business to satisfy Guild objections<sup>1</sup>. This did not happen.

An application was made to the Australian Community Pharmacy Authority for an Approval Number to operate a PBS dispensing pharmacy.

The approval was finally granted in July 2001 after an exhaustive investigation by the Health Insurance Commission which showed that all laws and regulations would be met. A “Start Up” Allowance of \$70,000 was then made to the Tiwi Health Board from the HIC to assist in commencing the business of a pharmacy in accordance with the rules laid down in the Pharmaceutical Schedule of Benefits regulations.

The Nguiu (Bathurst Island) Pharmacy came into being with a workshop on the Island involving all stakeholders. The aim was to explore the opportunities that presented to build a pharmacy service which concentrated on the needs of the patient first and the law and professional standards second.



An “Issues Paper” was distributed to the 17 participants and asked them to think of the issues before the event. The outcomes of the workshop then assisted in prioritising the work for pharmacists Rollo Manning and Judith Oliver and Pharmacy Technician Schania Czygan.

The workshop allowed the project to develop with a number of basic principles in mind that proved to be invaluable in planning and implementing procedures.

### **Julanimawu Health Clinic, Nguiu**

It was necessary to build the pharmacy service in a manner that suited the needs of remote living Aborigines, and not influenced by accepted “norms” from the mainstream Australian culture.

Patience and tolerance was the essence of the contract in trying to get the basics right before starting to add the “icing on the cake”. Processes needed to be built that enhanced the quality use of medicines but was not overloaded with administrative tasks that had no benefit to the patient.

To this end the following principles were kept foremost in mind:

1. Design all actions and administrative processes with the patient’s interests in mind – not just for the sake of having a system. Ask “will a patient get any healthier as a result of this action”?
2. The local community owns the pharmacy – not the pharmacist – people are employed who are acceptable to the local Aboriginal staff and are able to work harmoniously with the remainder of the clinic team. Remote living Aborigines do not have to work as they are supported by welfare benefits. The motivation to work comes from a desire to improve themselves and thus an interest in the planned activity is essential to a cooperative framework with the visiting health professionals such as pharmacists.
3. Any reorganisation of the pharmacy area had to be done in consultation and with the support of the local workers, especially the senior Aboriginal Health Workers.
4. New concepts had to be tested before they are “set in concrete”. The supply of medicines in the past (previous 40 years at least) had been conducted in a manner not adhering to professional practice standards. There were no deadlines to meet and there was time to test new methods to see if they worked before deciding on a course of action. As it turned out the project had resolved issues to do with procurement, inventory control, dispensing and a system for monitoring what went out of the health clinic dispensary inside the first 12 months.
5. Gain the support of other health professionals by example – they may not have experienced a good pharmacy service. This was an opportunity to scope out the role a pharmacist could play

<sup>1</sup> Personal communication with Guild officials April 2001

in this remote setting and contribute to the primary health care team in a meaningful way. This had not been done before so the rules were being made "on the run".

6. Just as ..."To understand the future you have to start living it<sup>2</sup>"...so too... "To understand Aboriginal people you have to start living with them". The reasons behind the high rate of chronic diseases had to be seen to be believed as it is the social infrastructure within these communities that create the prime determinants to ill health. The opportunity to use the range of knowledge acquired by pharmacy graduates was able to be tested to the full.

An information system was needed to replace the manual hard copy way of recording which was just not working. In many cases this was because the education level achieved by the local population did not equip them for the tasks at hand. This highlighted the need for computer based programs which did not require a high level of academic skill to operate. Throughout discussions that were held with IT consultants it was stressed that there was a need to concentrate on the gathering of data needed to protect the safety of the patient; stop when that was achieved and not be tempted to add extras until the basics were right; and then only consider extras that are proven to be necessary for patient welfare.

The introduction of "normal" manual ordering processes had failed and this led to the involvement of a man who was to contribute enormously to the project. Gerard Stevens, Managing Director in Australia for Webstercare, had become interested through the blister packaging (or Websterpak) and this proved a fortuitous coming together of concern for better systems. Gerard had a simple program to monitor stock going out of a room using a barcode scanner on the products EAN code printed on each pack.



**Gerard Stevens**



**Linda White at the Touch screen**

Nguiu health clinic was the "test" site and the positive manner in which health workers took to the process proved to be the starting point of "something big". Webstercare, through the software development arm of Meditrax, achieved the building of a dispense system for remote communities that doubled as an inventory control system.

The first complete program was put in at Nguiu in March 2002 by Gerard Stevens on his first visit to the islands. This being just six months after he and Rollo Manning had their first exploratory discussion on the subject. A chart had outlined the flow of information required and Meditrax worked from this.

While this was happening the Tiwi Health Board was having its own battle for recognition with the Pharmacy Guild of Australia. Membership of the Pharmacy Guild was seen as necessary in order to obtain access to information regarding Commonwealth programs to assist pharmacy practice models in the "quality use of medicine". T



**Canberra Times August 2001**

<sup>2</sup> 1972 ABC The Challenge of change – Professor Dexter Dunphy

Aboriginal health clinics that are registered to receive PBS benefits. The THB believed the Pharmacy Guild had the opportunity to be associated with forging a new way of doing business with Aboriginals in remote places through its project but this was not to be.

July 1 2002 became an important landmark when the Tiwi health clinics became eligible to access Pharmaceutical Benefit Scheme items under the arrangements made by the previous Minister for Health (Dr Michael Woolridge) for remote Aboriginal communities. The Nguiu Pharmacy then took on an important role in supplying the PBS items to all three Tiwi clinics and obtaining the benefit of the trading surplus of 10% on cost and \$1-14 an item. This process was the main motivation for the pharmacy being established. The Board had seen the benefit in not just being in control of its own destiny through pharmacy, but also being able to use any profits accrued back into the pharmacy service. After four months of PBS "trading" it was evident that the surplus was sufficient to employ a registered pharmacist for four days a week at least.

This became an important milestone in the development as it gave the leadership for setting in place a logical flow of work, supervised by a pharmacist. The dispensary at the clinic then covered the needs of both acute care patients and those with chronic disease on long term medication treatment.

Cathy Larkin was the pharmacist to put this process in place. A dispense system through the touch screen of the Webstercare software complimented the Websterpak system that became the "norm" for long term medication needs.

By December 2002 when Cathy left, the project had a sound work flow for dispensing, Websterpak and supply of medicines to all patients. The procedures had the approval of the doctors, nurses and Aboriginal Health Workers and were recognised generally as an improvement over past practices. Visiting doctors from other parts of the Northern Territory confirmed that the Tiwi model was successful and one that should be followed by other clinics.

The PBS was being managed in a way that



**Joachim Tipiloura reaches to a patient box**



**Linda Pupangmirri packs a Clamshell**

benefited the patient first and the pharmacists that obtained employment second. This was in stark contrast to community pharmacy in Australia where with pharmacist only ownership the PBS is managed by the Pharmacy Guild in a manner that suits its members – the pharmacy owners.

A visit to the islands of two National Councilors of the Pharmacy Guild, (the late) Kevin MacAnuff and Harry Zafer in April 2003

is hoped to be the turning point in relationships between the powerful retail pharmacy lobby group and the tiny Tiwi Health Board. A better understanding of the actions that have been taken has been gained and further visits by Guild elected people and their officers should lead to a new direction being formulated for a pharmacy approach to Aboriginal health.

The Tiwi Health Board is not resting and a subsidiary company, Mirrijini Pty Limited, has been set up with a grant from the Aboriginal industry in Australia of \$250,000 to market a consultancy service and the individual elements of the Tiwi model to other health organisations in the Northern Territory. If successful this will expand to remote Australia in general and the international market place.

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