Mirrijini Dispense System (MDS)

Managing Medicines in remote Aboriginal Clinics
Mirrijini – Tiwi for Medicine

- Ownership of “pharmacy”
- Location of a PBS approval pharmacy
- IT system to suit patient needs
- Indigenous “pharmacy technicians”
- Better packaging of medicines for chronic disease clients
Tiwi Population: 2,500
Language: 1 Language

Mirrijini – Tiwi for Medicine

Tiwi Islands

Population: 2,500
Language: 1 Language
The Pharmaceutical Benefits Scheme gave the opportunity

- Special arrangement using S100 PBS to remote Aboriginal health services
- Obtained a license for an Approved Pharmacy
- Received special “start-up” allowance
- Able to claim cost of PBS from the Health Insurance Commission
- Employed own pharmacist to manage the business
Need to know…?

- What is being given out?
- Who is giving it out?
- Who is it going to?
- Who authorised the supply?
- What directions are to go on a label?
- Print the label
Solution

Mirrijini Dispense System Touch Screen Program
Implication of medication compliance
What is Mirrijini Dispense System?

MDS is:
- All-in-one cabinet, touch screen computer, scanner
- Software package for:
  - recording medications dispensed
  - printing a dispensing label
  - stock control
How does MDS Work?

The Aboriginal Health Worker picks the medication off the shelf.

The medication is scanned into MDS.

The health worker selects:
• who is dispensing
• who is the client
• the doctor who prescribed the medication (where needed)
• the directions for the medication, to go on label

A label is printed and put on the medication box.
MDS in Progress - Video
MDS reporting capabilities include:

- Total Medicines used in a given period Report
- Client Medication Profile Report
- Usage Report per Medication Report
Urban Installation
Danila Dilba Health Service - Darwin

Danila Dilba is an independent Aboriginal Health Clinic located in the centre of Darwin.

The main focus of Aboriginal Health Clinics is for ‘Aboriginal health staying in Aboriginal hands’.
• MDS installed into the medication room since 2004
• Medications monitored by an AHW
• Through the relationship with Danila Dilba, the Mirrijini Dispense System has been constantly improved to meet their needs
Urban Installation
Danila Dilba Health Service - Darwin

Improvements and Innovations

• Stock Control System
• Time reductions to now have the dispensing of a medication to 13 seconds
• Reporting Functionality
Feedback:

• 80% reduction in time spent on medication administrative processes – stock count for re-ordering, handwritten labels, manually reviewing handwritten dispensing records for patient information

• Ability to add new barcodes for regular broken quantity amounts – time saving
Remote Installation
Napranum Health Clinic, FNQ

Initiative from QLD Health to trial the MDS in a remote setting. Current issues faced by QLD Health:

• Stock re-ordering
• Medication Tracking
• Compliance tracking
Remote Installation
Napranum Health Clinic, FNQ

Trial period of 4 months from January 2009 to May 2009.

Trial to determine:
• Time savings
• Ease of Use
• Benefits for patients
• Monitoring of stock ordering and usage
Remote Installation
Napranum Health Clinic, FNQ

Trial has been extended to incorporate networking MDS giving health professionals access to the data remotely (Cairns Base Hospital).

Initial Feedback received from 5 nurses working at Napranum Health Clinic is very positive.
Remote Installation
Napranum Health Clinic, FNQ

Time Recorded over 2 weeks for dispensing a medication the ‘old’ way.

– Ave of 2 medications per person
– Ave time per medication 2.01mins
Feedback after installation of Mirrijini cabinet:

“Having watched some of the nurses using the kiosk this is cut down to seconds rather than minutes now”
## EASE OF USE

Was it easy to learn to use the Mirrijini Kiosk?

<table>
<thead>
<tr>
<th>Strongly agree</th>
<th>Agree</th>
<th>Neither agree or disagree</th>
<th>Disagree</th>
<th>Strongly disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

How much training would you recommend to other nurses?

<table>
<thead>
<tr>
<th>none</th>
<th>20 mins</th>
<th>40 mins</th>
<th>1 hr</th>
<th>2hr or more</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>4</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

How long have you been using the system for?

<table>
<thead>
<tr>
<th>A few hours</th>
<th>A few days</th>
<th>A week</th>
<th>A few weeks</th>
<th>More than 4 weeks</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>3</td>
<td></td>
<td></td>
<td>2</td>
</tr>
</tbody>
</table>
Remote Installation
Napranum Health Clinic, FNQ

**TIME SAVING**

Is it better than handwriting labels?

<table>
<thead>
<tr>
<th>Strongly agree</th>
<th>Agree</th>
<th>Neither agree or disagree</th>
<th>Disagree</th>
<th>Strongly disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Does the kiosk save time?

<table>
<thead>
<tr>
<th>Strongly agree</th>
<th>Agree</th>
<th>Neither agree or disagree</th>
<th>Disagree</th>
<th>Strongly disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Remote Installation  
Napranum Health Clinic, FNQ

PATIENT BENEFIT

Do the patients find the instructions on labels easier to read & understand?

<table>
<thead>
<tr>
<th>Strongly agree</th>
<th>Agree</th>
<th>Neither agree or disagree</th>
<th>Disagree</th>
<th>Strongly disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>2</td>
<td>1</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Remote Installation
Napranum Health Clinic, FNQ

TECHNOLOGY & SUPPORT

What is easier to use: the touch screen or conventional keyboard and mouse?

<table>
<thead>
<tr>
<th>Touch screen</th>
<th>Either option</th>
<th>Keyboard</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Have you received adequate support with any problems?

<table>
<thead>
<tr>
<th>Strongly agree</th>
<th>Agree</th>
<th>Neither agree or disagree</th>
<th>Disagree</th>
<th>Strongly disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>2</td>
<td>1</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Remote Installation
Napranum Health Clinic, FNQ

**DEMOGRAPHICS**

How would you rate your computer literacy/skills?

<table>
<thead>
<tr>
<th>Excellent</th>
<th>good</th>
<th>average</th>
<th>poor</th>
<th>How do you turn it on?</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

What age group do you fall into?

<table>
<thead>
<tr>
<th>20 - 25</th>
<th>25 - 30</th>
<th>30 - 40</th>
<th>40 - 50</th>
<th>Really old?</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td></td>
</tr>
</tbody>
</table>
Remote Installation
Napranum Health Clinic, FNQ

Would you recommend this kiosk to other remote Primary Health Clinics?

<table>
<thead>
<tr>
<th>Strongly agree</th>
<th>Agree</th>
<th>Neither agree or disagree</th>
<th>Disagree</th>
<th>Strongly disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Any problems or suggestions?

- Absolutely advocate this in terms of time savings, legibility for clients. I am glad we have it here at Napranum
- I think its great, user friendly and timesaving
QUESTIONS?
Contact WEBSTERCARE

Phone: 1800 244 358

e-mail: manrex@webstercare.com.au

www.webstercare.com.au