WACHS Allied Health
Clinical Handover Project

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Next Challenge
Project: Back to the Bush: WACHS Allied Health Clinical Handover Project

Report Prepared by: Next Challenge

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1. Executive Summary

Clinical handover is one of the highest priorities of the Australian Commission on Quality and Safety in Health Care (ACQSHC). Client transfers between acute care tertiary settings and rural community and hospital based health professionals rely on intra-professional handover for safe, efficient and effective client outcomes. There is evidence in the literature, and anecdotally within WA Country Health Service (WACHS), that there are issues related to the intra-professional handover process between allied health professionals. However to date most investigations and strategies to improve handover processes have focused on medical and nursing contexts. Handover tools such as the iSoBAR have been found to improve clinical handover but need further investigation as to the application in the allied health contexts.

This project investigated the key issues arising from clinical handover between physiotherapists and occupational therapists working in acute tertiary metropolitan health services and their collegial counterparts working in rural health services. Findings identified current methods and processes of handover and determined areas where improvement was required. The transferability of the iSoBAR tool to the needs of allied health professionals was considered with potential adaptation identified. Additional areas for further development are recommended in the key areas of knowledge, standards, feedback, reporting, and strategies. Further targeted strategies are required for specific client groups and interventions to reduce the number of incidents currently occurring.

It is anticipated that the outcomes of this project will be transferable other allied health professions and other metropolitan rural hand over contexts (e.g. general hospitals, community services etc).
2. Introduction

The Australian healthcare system is characterised by increasing fragmentation across multiple settings and providers. Consequently the Australian Commission on Quality and Safety in Health Care (ACQSHC) has identified clinical handover as one of its top priorities (Priority Area 5)\(^1\). WA Country Health Service (WACHS) is currently funded by the ACQSHC to undertake a significant clinical handover project with the aim of:

- Standardising inter-hospital transfer clinical handover processes.
- Researching and developing clinical handover arrangements.

Handover is defined as "the transfer of professional responsibility and accountability for some or all aspects of care for a patient, or group of patients, to another person or professional group on a temporary or permanent basis.\(^1\)" Due to the varying nature of the situations in which handover occurs, it is difficult to prescribe a definitive practice. However utilising a process that ensures that the required relevant information is transferred enables the continuity of care for that patient. WACHS have implemented iSoBAR\(^2\) as a step-by-step sequential process to giving and receiving handover. The tool was initially developed to support ward hand over for shift changes, but has subsequently been extended to a range of other clinical handover scenarios.

While iSoBAR provides a standardised process for clinical handover, there is a need to consider how this tool can be tailored to individual professions and clinical handover contexts. This recognises that what is suitable in one profession or situation, may not meet the unique requirements of another. Although certain components may be able to be generalised, the successful adoption of a standardised handover protocol is highly dependent on the degree to which it is tailored for end users in a relevant organisational setting. There is the need to assist health professionals to apply the tool to their unique clinical environment through profession or context specific process maps and content. Consideration must also be given to the implementation of the tool/strategy.

Both rural and metropolitan allied health professionals (AHP) have identified the quality of clinical handover for allied health services between rural/metropolitan areas as a significant issue. A number of common handover issues have been anecdotally reported from a WACHS perspective, including:

- Limited, or total lack of, clinical hand-over
- Inappropriate provision (or lack of provision) of aides and equipment (especially for discharge home).
- Limited understanding of the therapeutic intervention capacity in the rural environment.

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- Limited understanding of the client environment (e.g. community services, home environment)

However there is a need to capture further data on handover issues, to determine specific contributing factors and to determine the applicability of iSoBAR as a strategy to address identified issues.

**Note:**

Terminology varies between individuals and services with regard to the use of *client* or *patient*. For ease of reading, the term *client* has been used predominantly within this report. Use of the term *patient* has been made for specific references to an inpatient.

The term *service* has been used to refer to any general health service / hospital unless a reference has been made specific to a hospital, ward or clinic.
3. Objectives

This project aimed to address the following objectives in the context of intra-professional clinical handover (physiotherapy to physiotherapy and occupational therapy to occupational therapy) between metropolitan acute tertiary hospital facilities and WACHS hospitals/community (home):

1. Identify clinical handover issues carrying the most risk for patients / clients (problem identification)
2. Investigate utilising iSoBAR as a clinical handover framework, identify and agree on priority clinical handover interventions (strategy identification), including:
   - Process map for clinical handover (based on iSoBAR)
   - Agreed content for clinical handover (based on iSoBAR)
   - Additional enablers for clinical handover
   - Reporting of clinical handover incidents
3. Identify competency and knowledge requirements for clinical handover between metro / rural / remote. This will inform the development of learning packages for clinical handover.
4. Recommend and develop draft tools to optimise clinical handover.

Due to time constraints the scope of the project was limited to the allied health professions of Occupational Therapy (OT) and Physiotherapy (PT) and the metropolitan tertiary hospitals only. It is anticipated that many issues and recommendations will have applicability across a range of allied health professions and contexts.

Project Deliverables:

Final report outlining:
- Stakeholder identification of key issues for clinical handover
- Recommendations for priority clinical handover interventions
- Applicability and transferability of outcomes to other professional groups.
- Draft clinical handover tools
1. Literature Review

4.1 Current Handover Tools and Purposes

The OSSIE Guide to Clinical handover\(^3\) outlines the ‘HAND ME AN ISOBAR’ as a standardized handover process. This guide to handover can be used for both written and verbal handovers (including use as a structure for teleconferencing and face to face handovers).

Other mnemonics have been derived from this by different health services for differing needs. As an example when WACHS and Royal Perth Hospital use ISOBAR to support the transport critically ill patients, the ‘A’ stands for ‘Agree to a Plan’ instead of ‘Assessment’ and ‘R’ stands for ‘Read back’ or ‘Recommendation’.

Another mnemonic, SHARED\(^2\) (situation, history, assessment, risks, expectations, documentation), is used by midwives and obstetricians at Mater Health Service in Brisbane to focus on the needs of the specific client group.

SBAR\(^4\) (Situation, Background, Assessment, Recommendation) is a briefing technique recommended by the Canadian Institute for Healthcare Improvement as a more concise way to improve communication between providers.

There is no evidence that any one mnemonic or method is better than another – all have been created following research into specific areas of need, to ensure that handover is capturing the information required by the health professionals involved to allow best possible outcomes for the client.

4.2 Allied Health Considerations in Clinical Handover

The current literature available surrounding clinical handover is predominantly focused on medical and nursing, or handover at a whole team level, and is typically at the acute level (eg. handover within hospital from emergency department to ward). There is little literature surrounding the use of formalised clinical handover tools for allied health, especially in the remote and rural context. Allied health clinical handover typically occurs as clients move between hospitals or programs (eg. moving from acute to subacute, acute to rehabilitation centres, or inpatient to outpatient / community settings).\(^5\) Within a single facility or

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program, profession-to-profession allied health handover occurs between staff who share rotation on a ward, or between weekday and weekend staff.

Typically handover occurs at two levels. The first is the generic handover, completed by the whole team. This handover is often a summary in nature, with only generic client information included. This handover generally does not allow for provision of detailed profession specific information. The handover is typically provided to a central location, namely the receiving hospital or General Practitioner, with copies provided to relevant health services. Breakdowns occur when this handover report is not distributed beyond the primary receiving service or professional. Consequently the AHP may not be aware of the handover, and the client will then fail to receive the required service.

The second level of handover involves profession specific handover, where clinical handover is provided between individual health professionals at the referring and receiving site. There are limited standard templates or formats for this type of handover. However, Department of Health (DoH) dietitians have recently collaborated to establish a standard client transfer summary sheet, which includes specific information when handing over within the same discipline. A similar approach may be useful for other allied health professions.

Arora and Johnson (2006) discussed the need for specific handover information, recognising that requirements for individual clinical areas are highly variable. While this article referred specifically to medical services, this requirement also applies to allied health. As AHPs work within a large number of clinical programs in both rural and metropolitan settings, program specific handover processes may be required to ensure handovers cover the areas required by that specialty. The Victorian Quality Council - Safety and Quality in Health (2006) clinical survey found that allied health reported the greatest number of problem areas with handovers from acute to community, community to hospital, acute to subacute and inter-hospital. Allied health reported the highest number of problems from acute to community setting handover (more problems than nursing, medical, and other departments). This highlighted that the need for improved handover was greatest in these areas, and differed between AHP and medical staff.

From a client’s perspective, discharge planning needs to consider local context and needs. Grimmer et al (2006) identified that client’s main concerns when leaving hospital included - transport home from hospital, getting into their house, assistance in managing their home duties and family, navigating around their

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house, and going shopping. The study found that few of those concerns were addressed in formal discharge plans and handovers made by the hospital. In the discharge of a client to home/community, timely clinical handover was critical to ensure that the local AHP would be able to support the patients on return to their home community and environment.

4.3 Measuring success (incidents, staff/patient satisfaction)

Velji et al (2008)\(^9\) found that once teams were trained in using a standardised handover technique, they found it improved communication, enhanced patient satisfaction, and reduced the number of adverse events and near-misses. More work is needed to evaluate the use of this approach in improving communication amongst interdisciplinary team members across healthcare settings. Further evaluation is also needed in non-acute care settings and beyond the hospital setting; for example, looking at its use in communications between other types of providers and with healthcare managers.

A study on the use of SBAR in Victoria\(^5\) found the tool was used to hand over urgent safety issues, changes in treatment and care plans, discharge planning, changes in team process or scheduling changes. It was used at shift changes, for conflict resolution and as a debriefing tool. The team perceived that SBAR enhanced individual and team communication, provided accountability and was most beneficial in urgent and more difficult situations.

4.4 Summary of Literature

There is a large amount of information available regarding the importance of clinical handover to ensure client safety and quality control. A variety of methods are used to standardise clinical handover, with the aim to ensure clinical handover is timely, accurate and appropriate. There is emerging evidence of improvement in handover when tools have been implemented. The literature currently surrounding clinical handover has a strong bias towards medical and nursing handover, with little information regarding handover methods for allied health.

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5. Methodology

External consultants from Next Challenge were contracted to undertake the project, with support from Suzanne Spitz Project Manager WACHS, throughout June 2009. Project steps included:

**Communication and Participation**

- Preliminary briefing email inviting participation in the project sent to:
  - Senior Occupational Therapists and Senior Physiotherapists, WACHS
  - Heads of Department of Occupational Therapy and Physiotherapy of
    - Royal Perth Hospital,
    - Sir Charles Gairdner Hospital
    - Fremantle Hospital
    - Princess Margaret Hospital

- Project specification email to individual AHPs who had responded to the participation project, requesting nomination of an interview time.

- Weekly project management team meetings between WACHS and Next Challenge.

**Literature Review**

- Review of the literature around clinical handover elements, issues and tools.

- Investigation of current tools/ frameworks.

**Problem Identification**

- Development of standard interview format with qualitative and quantitative questions for targeted services (Appendix A).

- Conduct interviews:
  - Nominated Physiotherapy representatives from WACHS
  - Nominated Occupational Therapy representatives from WACHS
  - Nominated Physiotherapy representatives from 4 metropolitan tertiary hospitals
  - Nominated Occupational Therapy representatives from 4 metropolitan tertiary hospitals

- Data collection including:
  - Incident reporting
  - Frequency of potential need for clinical handover between metropolitan and rural services.
Analysis of Data and Information


- Cluster analysis and root cause identification using Fishbone Diagram / PIPE technique (People, Process, Information, Equipment) completed on identified issues.

- Proposal of potential solutions / requirements in consultation with WACHS representatives.

Report and Tool Development

- Draft report and potential tool suggestions circulated for feedback to participants and to WACHS senior allied health professionals and managers of allied health services and metropolitan tertiary hospital Heads of Department.

- Finalisation of report recommendations for further action.
6. Findings

6.1 Interviews

Interviews were completed with at least one AHP from each of the seven WACHS regions and from each of the four-targeted tertiary hospitals. Interviews were conducted either individually or with a team of professionals depending on interviewee’s preferences and circumstances.

<table>
<thead>
<tr>
<th>Region</th>
<th>OT Interview Participants</th>
<th>PT Interview Participants</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Great Southern</td>
<td>2</td>
<td></td>
<td>2</td>
</tr>
<tr>
<td>South West</td>
<td>1</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Wheatbelt</td>
<td>1</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Goldfields</td>
<td>1</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Midwest</td>
<td>2</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>Pilbara</td>
<td>2</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>Kimberley</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>TOTAL</td>
<td>10</td>
<td>10</td>
<td>20</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Region</th>
<th>OT Interview Participants</th>
<th>PT Interview Participants</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fremantle Hospital</td>
<td>2</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>Sir Charles Gairdner Hospital</td>
<td>6</td>
<td>3</td>
<td>9</td>
</tr>
<tr>
<td>Royal Perth Hospital</td>
<td>4</td>
<td>12</td>
<td>16</td>
</tr>
<tr>
<td>Princess Margaret Hospital</td>
<td>-</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>TOTAL</td>
<td>12</td>
<td>19</td>
<td>31</td>
</tr>
</tbody>
</table>

6.2 Current Elements of Clinical Handover

The following elements were consistently described through interviews as current elements of handover.
How does handover occur?

<table>
<thead>
<tr>
<th>Rural AHPs</th>
<th>Metropolitan AHPs</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Minimal standard policy / some standard</td>
<td>• All have some format / template</td>
</tr>
<tr>
<td>formats but not prescriptive</td>
<td>• Written discharge report</td>
</tr>
<tr>
<td>• Email</td>
<td>• Phone call</td>
</tr>
<tr>
<td>• Phone call</td>
<td>• Fax</td>
</tr>
<tr>
<td>• Fax</td>
<td>• Email</td>
</tr>
<tr>
<td>• Give client written information</td>
<td>• Videoconference / telehealth is some specific areas</td>
</tr>
<tr>
<td>• Videoconference (low freq)</td>
<td>• Photos</td>
</tr>
<tr>
<td>• Discharge summary</td>
<td>• Home programs / exercises</td>
</tr>
<tr>
<td>• Photos of homes</td>
<td></td>
</tr>
</tbody>
</table>

When does handover occur?

<table>
<thead>
<tr>
<th>Rural AHPs</th>
<th>Metropolitan AHPs</th>
</tr>
</thead>
<tbody>
<tr>
<td>• As soon as alerted to an appointment by</td>
<td>• Between 2-3 days before discharge, day of</td>
</tr>
<tr>
<td>either the metropolitan service or the client</td>
<td>discharge or day or two after</td>
</tr>
<tr>
<td></td>
<td>• As soon as aware of when being discharged / where</td>
</tr>
<tr>
<td></td>
<td>going to</td>
</tr>
<tr>
<td></td>
<td>• On day or one day after client arrives in</td>
</tr>
<tr>
<td></td>
<td>rural service / community</td>
</tr>
</tbody>
</table>

Why is handover completed?

<table>
<thead>
<tr>
<th>Rural AHPs</th>
<th>Metropolitan AHPs</th>
</tr>
</thead>
<tbody>
<tr>
<td>• May have information that would benefit the</td>
<td>• When further therapy or follow up is needed</td>
</tr>
<tr>
<td>metro service</td>
<td>• Home visit needs</td>
</tr>
<tr>
<td>• May want advice or second opinion</td>
<td>• Equipment needs</td>
</tr>
<tr>
<td>• Waiting on the visit to direct local therapy</td>
<td></td>
</tr>
</tbody>
</table>

Which clients need handover?

<table>
<thead>
<tr>
<th>Rural AHPs</th>
<th>Metropolitan AHPs</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Low frequency of occurrence reported</td>
<td>• For Complex clients</td>
</tr>
<tr>
<td>except for paediatrics</td>
<td>• Clients where immediate follow up is needed /</td>
</tr>
<tr>
<td>• Client is a current shared care client e.g.</td>
<td>perceived</td>
</tr>
<tr>
<td>CP clinic at PMH, Amputees</td>
<td>• Not as important for simple clients</td>
</tr>
</tbody>
</table>
Who is handover directed to?

<table>
<thead>
<tr>
<th>Rural AHPs</th>
<th>Metropolitan AHPs</th>
</tr>
</thead>
<tbody>
<tr>
<td>To department mostly</td>
<td>To individual AHPs or department</td>
</tr>
<tr>
<td></td>
<td>CP Liaison Officer to relevant AHPs</td>
</tr>
</tbody>
</table>

Typical Handover Content Areas

- Contact number and address
  - Social supports / contact details of next of kin other support resources
- History – medical and social / general background
- Co-morbidities / contra-indications
- Functional information
- Current therapy / rehabilitation to date
- Expectations of AHP
  - Specialist regime / protocol
  - Equipment provided / needed
- Follow up timeframes / future plan
- Recommendations

Reported Value of Handover

Clinical handover was recognised as being an important function of an allied health professional’s clinical practice and duty of care. Reported benefits of clinical handover included:

- Reciprocal Education
- Supports clinical judgement
- Feedback on progress and further needs of client
- Demonstrate continuum of care to client
- Prevent holding up of rehabilitation or discharge
- Prevent unsafe practice / minimise hazards
- Time saving / efficient
- Prevent re-admission
- Optimise service and resource use
- Document evidence of previous treatment outcomes

6.3 Ratings of Handover Process

Participants were asked to provide a rating on a 1 to 7 scale on a number of statements relating to clinical handover. The scale ranged from 1 indicating limited importance or very poor, to 7 indicating very important or excellent.
Table 3 Rating of handover

<table>
<thead>
<tr>
<th>Rating</th>
<th>Average</th>
<th>Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Importance of H/O rated by rural</td>
<td>7</td>
<td>-</td>
</tr>
<tr>
<td>Importance of H/O rated by metro</td>
<td>6.9</td>
<td>3-7</td>
</tr>
<tr>
<td>Current standard of H/O as rated by rural</td>
<td>3.95</td>
<td>1-7</td>
</tr>
<tr>
<td>Current standard of H/O as rated by metro</td>
<td>4.5</td>
<td>2-7</td>
</tr>
<tr>
<td>Rural knowledge of who to refer to in metro</td>
<td>5.1</td>
<td>3-6</td>
</tr>
<tr>
<td>Metro knowledge of who to refer to in rural</td>
<td>4.96</td>
<td>3-7</td>
</tr>
<tr>
<td>Rural ratings of metro knowledge of who to refer to</td>
<td>3.92</td>
<td>2-6</td>
</tr>
<tr>
<td>Metro ratings of rural knowledge of who to refer to</td>
<td>4.75</td>
<td>3-7</td>
</tr>
</tbody>
</table>

- 100% of rural AHPs rated handover as very important
- Metropolitan AHPs tended to qualify importance dependant on the needs / type of the client / patient
- Metropolitan OTs reported an increased in rating of their knowledge of who to refer to in rural areas as a direct result of the WACHS OT contact list

6.4 Reported Incidents

During interviews, AHPs were asked to provide information and reflect on clinical incidents that had occurred as a result of clinical handover issues. 22 incidents were reported during interviews. It is important to note that due to time constraints, interviewees were given a maximum limit of 2 incidents per interview.

Of the 22 incidents discussed by the interviewee:
- 5 were formally reported using the Australian Incident Management System (AIMS)
- 5 were reported to the discharging hospital / AHP
- 1 was reported on the Allied Health System (metropolitan)
- 11 were not reported

Recurrent themes relating to handover incidents included:

Population groups
- 8 incidents reported related to Aboriginal and Torres Strait Islander (ATSI) population group (varied diagnoses)
- 7 incidents reported related to Orthopaedic / Spinal injuries
- 5 incidents reported related to Children (varied diagnoses)
Lack of timeliness of handover

- 5 incidents related to a lack of timeliness of handover
- 8 incidents related to a complete lack of handover

Unusual equipment / procedure not handed over

- 2 incidents related to a lack of guidelines / procedure being handed over to client or AHP
- 2 incidents related to a lack of handover of equipment (not available in the rural area)
- 3 incidents were reported relating to equipment that was not appropriate for the rural home / environment
- 3 incidents were reported relating to the home being inaccessible

Incident Types

Example 1. Female with a disability admitted for hamstring and adductor release.

Major Issues:

- Local allied health and medical team of appointment not notified of appointment.
- No discharge summary or post-operative orders provided post surgery
- Client returned to local community – local team not aware of return
- When located client was using wheelchair with flat tyres
- Home and school not wheelchair accessible
- Client experienced muscle wastage and was at risk of wound infection

Example 2. Female discharged post upper-limb surgery.

Major Issues:

- Referral received day after she arrived home with request for shower chair and toilet frame
- On home visit local AHP found that the client required specialised equipment not currently available at the health service
- Prior to home visit being conducted client was unable to use the toilet without necessary equipment - family took client to the local hospital to use their facilities
- In addition to requested equipment, local AHP on home visit found the client required splint modification within four days of the referral
Example 3. Female discharged with a CAEP funded wheelchair.

Major Issues:

- No home visit requested prior to prescription of wheelchair
- Wheelchair not suitable to go on the Home and Community Care (HACC) bus so the client was unable to access medical services
- Wheelchair not well suited to the client’s home or community environment

Example 4. Male discharged home requiring prosthetic leg fitting.

Major Issues:

- Prosthetic leg sent to local PT with no identifying client information
- Time spent liaising with tertiary service to determine client
- Client unable to be located in the remote communities he moved within
- Prosthesis was not fitted until 3 months post discharge

Example 5. An elderly Aboriginal female was discharged home to remote community following fractured neck of femur.

Major Issues:

- Discharged with no walking aide, no bed, no shower chair
- Considerable time lapsed before client located
- No handover to local health services to ensure she followed guidelines to protect her hip (client had been getting up form the ground without aide of equipment)
7. Analysis of Issues

7.1 Major Trends

- Most incidents occurred as a result of no handover, poor handover and lack of timeliness in handover.
- Strong support was evident for the concept of a framework such as iSoBAR as a minimum standard for content needed in a handover - some changes to headers would be needed for the allied health context.
- Metropolitan services had a strong preference to retain current clinical handover formats, as they were tailored to the range of facilities, wards processes, clients groups, complexity etc.
- WACHS services had a preference for a standardised format / process of handover with capacity for variation as needed.

7.2 Identified Characteristics of Handover

Interviewees gave consistent descriptions of how handover was currently occurring, and indicated the preferred characteristics of handovers.

<table>
<thead>
<tr>
<th>Current Handover</th>
<th>Preferred Handover</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inconsistent / hit &amp; miss – not related to need for handover</td>
<td>Consistent in all necessary cases</td>
</tr>
<tr>
<td>Variable - done in lots of different ways</td>
<td>Varied - different purposes but with an agreed minimum standard</td>
</tr>
<tr>
<td>Scattered – reliant on individual AHPs</td>
<td>Targeted – specific processes where risk is highest</td>
</tr>
</tbody>
</table>

7.3 Issue Analysis

Issues were analysed using the Fishbone Diagram grouped by - People, Policy / Process, Information, and Equipment. From the issues thematic analysis was conducted to determine the root cause or need identified by that issue. This analysis was collated into the following key areas, where a need for improvement was recognised as essential to change the current handover issues.

<p>| Standards – shared and agreed standard of practice with benchmark targets to measure performance. | Communication Processes – feedback (closure of communication initiated by handover) and reporting (capturing data on breakdowns in system to allow continual improvement/ identify target areas for increased strategies/ knowledge etc). |
| Strategy – tools and steps that can be taken to address issues (e.g. how do I determine the relevant AHP). | Target Area – specific areas where recurring issues are identified and a need for targeted solution development. |
| Knowledge – understanding, experience, education and information available (including client education). | |</p>
<table>
<thead>
<tr>
<th>People</th>
<th>Issues</th>
<th>Area of Need</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Not knowing level of experience, what can be expected from a AHP</td>
<td>Knowledge</td>
</tr>
<tr>
<td></td>
<td>Instances where no handover occurs – no data on either side of how often this happens.</td>
<td>Communication / feedback</td>
</tr>
<tr>
<td></td>
<td>Change in anticipated return date when Dr discharges with no reference to the AHP</td>
<td>Discharge process (Out of scope)</td>
</tr>
<tr>
<td></td>
<td>Timeliness – can be when client is on way home or after return.</td>
<td>Standards</td>
</tr>
<tr>
<td></td>
<td>Client expectations raised as to what they can expect (which can’t be met)</td>
<td>Knowledge</td>
</tr>
<tr>
<td></td>
<td>Time wasted finding the AHP/ getting to make contact (phone tag)</td>
<td>Strategy</td>
</tr>
<tr>
<td></td>
<td>Can’t alert/ contract AHPs when they are on the outreach</td>
<td>Strategy</td>
</tr>
<tr>
<td></td>
<td>Personal variance in knowledge and understanding of each others services</td>
<td>Knowledge</td>
</tr>
<tr>
<td></td>
<td>Unrealistic expectations of what can be provided</td>
<td>Knowledge / Standards</td>
</tr>
<tr>
<td></td>
<td>Client not aware of need to alert the clinician of appointments</td>
<td>Knowledge</td>
</tr>
<tr>
<td></td>
<td>Clinicians unaware client already seen by a clinician at another site</td>
<td>Communication / Feedback</td>
</tr>
<tr>
<td></td>
<td>Fluctuations in what a service can offer dependant on staffing levels</td>
<td>Knowledge / Strategy</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Policy/ Process</th>
<th>Issues</th>
<th>Area of Need</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Format and method need to be variable to meet different needs/ different information needing to be included</td>
<td>Standards</td>
</tr>
<tr>
<td></td>
<td>Discharge summaries filed in medical record/ not seen by clinician</td>
<td>Standards</td>
</tr>
<tr>
<td></td>
<td>Variation of what can be delivered across services/ difference in protocols across services</td>
<td>Knowledge / Strategy</td>
</tr>
<tr>
<td></td>
<td>Information sent out may only go to referral source e.g. GP not clinician</td>
<td>Standards / Reporting</td>
</tr>
<tr>
<td></td>
<td>No set reporting process of incidents:</td>
<td>Reporting</td>
</tr>
</tbody>
</table>
### Information
- Lack of knowledge of distances/localities
- Contact details not kept up to date.
- Variation in handover system between different services and between wards
- Not sure who what service to H/O to AHP changes on wards
- Lack of information on when clinicians would prefer to receive the handover.
- Unsure what is needed by the local clinician.
- Medical contact sticker does not reflect where individual lives.
- Specialist may not request AHP involvement when client in clinic if not aware of local clinicians need for review

### Equipment
- Who pays for/supplies equipment/home modifications
- Equipment arrives at a health service with no identification of to the client who required it
- Mis-match between equipment and rural environment

### Out of Scope Issues
- Appointment systems where appointments are sent out to transient families, or where there is short notice of appointment when there is considerable logistics to ensure client able to attend
- Inter-hospital transfer issues e.g. transfer back to rural ward but discharged as ward full before seen by AHPs.
- Discharge plan changed on ward with the AHP unaware of the change in plan
- Communication sent by rural emergency department with client to metropolitan hospital
8. Discussion

8.1 Standards

Value of Clinical Handover

There was strong consensus on the purpose of clinical handover and how important it was for client safety and continuity of care, particularly from the client’s perspective. When handover was successful clinicians described benefits of being efficient and preventing duplication or revision of previous information/rehabilitation. Handover was also identified as valuable for development of networks and provision of clinical education through second opinions, treatment outcomes and new protocol provision.

Content and Format of Handover

Interviewees described a range of handover formats and content currently in place. There was widespread overlap on general content areas, with some specific clinical area or population differences. Terminology differed across handover formats but with many core underlying elements. Individual decisions were often made about what to include in handover with recognition that it was not clear if the content met the receiving AHP’s needs.

“I'm not sure if what I send in handover is useful or if they want other information.”

Interviewees were asked to comment as to how well the iSoBAR framework applied to AHP handover. Positive feedback was received with regards to a standardised guide of essential content that could then be applied across different handover methods and process. It was felt that flexibility was required to allow for necessary variations in the specific information as required.

Two elements of the iSoBAR were reported as requiring terminology change or adaptation. The headers and prompts for identification and observation were reported to be less relevant terms in an allied health context. The remaining elements of the iSoBAR mnemonic were considered relevant by interviewees.

Review of the content areas most frequently reported as being essential for clinical handover not captured within the iSoBAR tool included the need for:

- clear and extensive contact details for the client
- contact details of the handover clinician
- clear information on the expectations of the receiving AHP such as timing, frequency of therapy, protocols and equipment requirements.

There is opportunity for adaptation of the iSoBAR tool to include and emphasis these handover requirements.
Time Frames for Handover

AHPs reported significant concern with the timeliness of handover. Handover timeliness was reported to be better for situations when the client was a long-term patient (e.g. spinal, amputees) than acute situations. Typically handover was provided one to two days before the discharge of a patient from a ward, but there were indications that timeframes may be further compromised with earlier than planned discharges, and a lack of knowledge of the timeframe needed by their counterpart.

“I’m not sure if the timeframe meets rural AHP’s needs”

Issues with timeframes were not considered as significant when clients were being transferred from one acute in-patient facility to another. However, timeliness of handover was considered particularly important for community clients, especially when equipment (particularly non-standard equipment) or home modifications needed to be organised prior to discharge home.

There is a need for standardisation of the optimum timeframe for handover. There was consistent preference from AHPs for clinical handover to be initiated at admission or as early as the need for handover become evident (rather than when the client was being discharged from the service). Variations to timeframe standards may be identified with further investigation into clinical areas or population groups.

Areas for Improvement

1. Adaptation of the iSoBAR tool for clinical handover specific to allied health professionals needs and contexts.

2. Establish minimum standards for the handover process including type of handover, content of handover, timeframes and expectations (limitations).

3. Clinical handover policy and guidelines including the purpose, minimum standards and reporting strategies for reciprocal clinical handover services.

8.2 Strategy

Decision Making

Several of the issues identified during interviews indicated the need for the development of strategies or flow charts to guide and support handover decisions. This included addressing decisions such as who required handover, how handover should occur and the timeliness of handovers. There was some variance between how important handover was considered specifically in terms
of clients judged by a clinician to be “simple”. Currently there are no standard guidelines to identify which client groups / clinical situations require handover, or to prioritise the type and extent of handover for different client populations. Decisions are made based on current practice, clinical judgement and perceived need for handover. Perceived need is either based on personal experience of the needs of the other service or assumptions of what may be required by the alternative service.

A tool or strategy is needed to support consistency in decision-making across services. This would provide for the flexibility needed for handover decisions across such a complex and variable system, while ensuring minimum standards are maintained.

**Contact**

Strategies are also required to assist clinicians to identify appropriate contacts and handover sources. This was especially pertinent when the client was located outside allied health base community. This required the clinician to identify where the client is from and who is the nearest allied health service, which was often difficult to determine from simple contact lists. Strategies are also required to assist clinicians to final alternative handover sources, especially when profession specific contact could not be made.

**Areas for Improvement**

4. Develop a decision-making framework to guide clinical handover, including the modality of handover, the content and extent of handover, the timeliness of handover and where / who to provide handover to.

**8.3 Communication Processes**

**Feedback**

Clinical handover was reported positively by clinicians for certain metropolitan hospital wards, and by specific individual clinicians. Metropolitan AHPs indicated handover by rural AHPs met their needs when it was received. A common element of successful handover was described when a relationship existed between the two parties involved in the handover. This was often the result of the parties “working” at the relationship over time. Communication and a mutual collaboration between clinicians was a key element, with the frequency of handover between two services assisting in establishing this successful “sharing” of clients. This two-way learning of each others preferences, situations and requirements facilitated knowledge building essential for efficient and effective handovers between the AHPs.
Two-way communication processes are essential for continual knowledge development needed in the complex and frequently changing context of both services. Characteristics of the issues captured in the interviews that required ongoing two-way communication to address include:

- appreciation of the level of skill and experience of the other clinicians (both under and over-estimation)
- the type of service currently able to be provided
- the need for second opinion requirements or guidance
- alerting of changes in staffing and service characteristics

Importantly interviewees described the need to check whether an expectation was feasible of the other service / AHP. Timely feedback, indicating a lack of capacity, skill or equipment, was considered essential so that alternative client management strategies could be initiated to ensure safe discharge.

There are currently mixed preferences for the modality of clinical handover provision. For some clinicians, phone calls were the preferred modality in that it provided an immediate communication and feedback mechanism, with follow up written information. Alternatively written handover was preferred by other clinicians, with the option for them to decide on the need to contact the referring clinician, as needed. Written information was considered important for clarification of information, particularly when specific follow-up was required or protocols needed to be followed. Preference for written fax or email handover varied between services, depending on access to either.

Communication issues related to the use of these modalities included issues with accuracy of information provided, timeliness of initiation of the clinical handover, and information not being received. Interviewees emphasised the need for the contact details of the referring clinician to be made clear, to facilitate ease of contact if required. Communication was reported to be most successful when it was directed to a department or ward as opposed to an individual AHP. Staffing fluctuations and changes emphasised the requirement for a centralised contact point for initial receipt of clinical handover. This could then be directed to the most appropriate AHP.

**Reporting**

The quality of clinical handover was reported to be variable, from both a metropolitan and rural perspective, although typically rural service tended to experience more incidents related to clinical handover. There was little awareness of the process for reporting of incidents related to clinical handover, and consequently little or no follow up investigations of reported incidents. Interviewees indicated various attempts to address and rectify situations but this generally occurred at a local rather than systemic level. Some AHPs identified the emerging use of the AIMS system to report handover breakdowns or problems.
Areas for Improvement

5. At a minimum, clinical handover should be provided in written format directed to the receiving department or ward (fax or email) and to include the direct contact details of the referring clinician. Phone contact should accompany the written referral.

6. Improve communication process and feedback by the receiving allied health professional, including confirmation of receipt of handover, provision of outcome / problem identification information, feedback on suitability of expectations etc.

7. Increase awareness and utilisation of incident reporting systems, including AIMS, for the report, feedback and management of incidents relating to clinical handover.

8.4 Knowledge

The quality of handover was influenced by many factors, including previous experience or mutual understanding between locations. Examples of good handover were often prefaced by participants as being a result of a specific individual with past experience working in the alternative context (e.g. a rural clinician moving to a metropolitan centre or visa versa), or as the result of a clinician with a long history of working in that clinical area and having good networks in the other location. Increased knowledge of who and where to refer through tools such as profession specific contact lists (e.g. WACHS OT Contact List) was also reported to facilitate clinical handover. Up to date contact lists and access to these lists were considered essential knowledge to assist handover.

There is a need for improved appreciation of the unique characteristics of the metropolitan and rural contexts when considering clinical handover requirements. Interviewees reported to having limited understanding of some contexts, and consequently having to make assumptions when providing information. Operationally, there are significant differences between the two contexts that contribute to decision making around who, when and what is provided during the handover process. Limitations in knowledge regarding the other services operational processes were considered to contribute towards handover issues.

An example of the need for education on operational differences is the reported assumption of access to databases to obtain more client information (e.g. TOPAZ client database which controls client identification and appointment provision is not accessible by rural services). Contact details are also stored on separate statistics systems that are not compatible (e.g. metropolitan – AHS; rural – H-CARE). This incompatibility and inaccessibility of core client databases across the two environments is out of the scope of this project to make recommendations on change. However awareness of this situation will be
essential for all AHPs involved in the handover process between rural and metropolitan health services.

In summary, there was a need for improvement in the thematic area of knowledge that would benefit handover between rural and metropolitan services. From interviews these include:

- Understanding of the geographical and outreach service constraints of the rural environment
- Understanding of the scope of service provision, and the capacity and capability of health professionals
- Standard equipment available in rural contexts and time delays in accessing equipment not immediately available
- Understanding of the importance of providing numerous contact details for clients. Participants emphasised difficulties locating clients due to incorrect phone numbers or a lack of extensive contact details, including details of next of kin (this was particular relevant to transient clients, or those without traditional contact means e.g. phone)
- Appreciation that client details and future appointments were inaccessible due to the differences in services client database systems

Areas for Improvement

8. Development of education resources to support essential knowledge required for clinical handover.

9. Establish, enhance, market and maintain current contact detail resources.

8.5 Targeted Areas

There are additional needs for targeted knowledge development and strategies for handover situations where handover breakdowns were most likely to occur. The incidents reported during interviews clustered into three main target groups where further investigation and specific targeted strategies were required including:

- Aboriginal and Torres Strait Islanders (ATSI) clients
- Remote communities / non standard housing situations (e.g. caravan, stations)
- Shared care paediatric clients

Areas for Improvement

10. Investigation of strategies to support clinical handover for high-risk populations such as Aboriginal clients, clients from remote communities and non-standard housing situations, and shared care paediatric clients.
8.6 Out of Scope of Project

The interview and discussion process identified a number of issues considered beyond the scope of this project. They concerned the broader inter-hospital transfer and tertiary hospital clinic systems. The common themes of this information included:

- Changes in discharge plans / early discharge without internal communication to relevant clinicians.
- Incomplete / inaccurate transfer information.
- Discharges from private hospitals without handover and told to “call in” to local hospital for equipment (e.g. following surgery).
- Lack of written information provided to the family or local health service specifically relating to medical appointments.
- Identification and flagging clients from rural areas e.g. during admission process.
- Standard protocols for different client groups across services e.g. post surgery protocols that are the same from each tertiary hospital.
- Incompatibility and inaccessibility of core client databases across the rural and metropolitan services.

These issues impacted on both on satisfaction with the clinical handover processes and the risk of incident on handover.
9. Summary of Recommendations

There are a number of areas for improvement identified during this project. Further development and investigation is warranted into the following:

**Short Term**

1. Adapt and market the iSoBAR tool as a prompt to support clinical handover specific to allied health professionals’ needs and contexts (see section 10).

2. Develop a decision-making framework to guide clinical handover (e.g. type of handover, content of handover, timeframes, expectations, limitations support and resource requirements).

3. Recommend, that at a minimum, clinical handover to be provided in written format directly the receiving clinician (fax or email) and will include the direct contact details of the referring clinician. Phone contact should accompany the written referral.

4. Develop education resources to support knowledge required for clinical handover, including
   - Rural and remote service provision
   - Geography and environmental of country WA (including issues related to outreach service provision where the client away from the health professional base)
   - Capacity and capabilities of rural and remote health services
   - Targeted client groups such as Aboriginal people

5. Establish, enhance, market and maintain current contact detail resources.

**Medium Term**

6. Standard clinical handover policy and guidelines including the purpose, minimum standards and reporting strategies for reciprocal clinical handover between rural and metropolitan services.

7. Improve communication process and feedback by the receiving health professional, including confirmation of receipt of handover, provision of outcome and problem identification information, feedback on suitability of expectations etc.

8. Increase awareness and utilisation of incident reporting systems, including AIMS, for the report, feedback and management of incidents relating to clinical handover.
9. Further investigate strategies to support clinical handover for high-risk populations such as Aboriginal clients, clients from remote communities and non-standard housing situations and shared care paediatric clients.

Transferability of Recommendations

Finally there is the need for further investigation of the transferability and application of the above recommendations to;

1. Other allied health professionals, and,

2. Different metro rural clinical handover contexts (beyond the tertiary hospital setting).
10. Preliminary Tool Development

The following tools are suggested to assist the process of clinical handover for allied health professionals. These tools are preliminary concepts, which can form the basis of future tool development.

9.1 Adaptation of the iSoBar Mnemonic

Whilst maintaining the consistent format and neumic of iSoBar as a recognised multiprofessional clinical hand over tool was recommended, it was acknowledged that further adaptation or prompts were required to tailor the tool to the allied health context. The following adaptation can be used to analyse forms and processes currently used by health services to ensure all of the following information is presented. It can also be used to guide phone or written handover between AHPs.

The content of iSoBAR in the allied health context include

<table>
<thead>
<tr>
<th>I</th>
<th>Identify the</th>
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<tbody>
<tr>
<td></td>
<td>- Contact Details of Referring AHP (name, site, department, phone number)</td>
</tr>
<tr>
<td></td>
<td>- Client Contact Details + Contact Details of Next of Kin/Other Appropriate Contacts (as much information as possible) (name, aliases, gender, location, home address, phone number)</td>
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</tbody>
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<thead>
<tr>
<th>S</th>
<th>Describe the Situation</th>
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<tbody>
<tr>
<td></td>
<td>- Briefly describe the situation (diagnosis, severity, principle issue, reason for transfer/discharge).</td>
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<table>
<thead>
<tr>
<th>O</th>
<th>Detail patient Observations, Assessments and Function</th>
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<tr>
<th>B</th>
<th>Provide patient background and history including previous level of function.</th>
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<tr>
<th>A</th>
<th>Agree on a Plan and Expectations</th>
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<tbody>
<tr>
<td></td>
<td>- What are the expectations of receiving AHP? What is required, by whom, and by when (e.g. therapy, equipment, home visit etc)?</td>
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<tr>
<td></td>
<td>- What is the receiving AHP able to provide/support?</td>
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<tr>
<th>R</th>
<th>Agree on Responsibilities and Risk Management including documentation, safety precautions, role division, support (e.g. resources, guidelines) and priorities for handover.</th>
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</thead>
</table>
10.2 Clinical Handover Decision Making Tool

Decision making tools are commonly used across the health sector to improve the quality and continuity of care, and are used in a variety of settings to develop health professional knowledge and practice. It is recommended that AHPs have access to a decision-making tool to assist the process of clinical handover.

A decision making tool for handover between AHPs could include the following questions:

1. Do I have a rural client?
2. Do I need to alert the rural AHP early?
3. Do I know where rural AHP is located?
4. Do I need further advice to assist with the management of this client?
5. Does this client require equipment that I cannot supply?
6. Does this client require a CAEP referral or will this client require a CAEP referral at a later date?
7. Is a home-visit required for this client?
8. Will this client require ongoing therapy?
9. Am I using an unusual/unique treatment technique?
10. Does this client need to follow specific post-operative guidelines?
11. Is this client likely to deteriorate in the future?
12. Does this client pose a risk to other AHPs?

This decision making tool could be used upon admission of a rural client or when a client first presents as an outpatient in order to start the handover process.

Responses to each question could then lead to additional information such as a map of services available in rural areas, contact details of rural and metropolitan AHPs (including specialties), and information regarding CAEP.

The Internet Toolbox for Rural GPs decision-making framework for guiding rural GP referral to mental health services may provide a useful conceptual guide for an allied health clinician handover decision-making tool.10

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10 Ollerenshaw A. Internet tool box for rural GPs to access mental health services information. Rural and Remote Health 9 (online), 2009; 1094. Available from: http://www.rrh.org.au
Appendix A Interview Format

Topics to cover
- Incidences relating to handover (reporting, frequency, level)
- Knowledge of who/what/where (rural and metro)
- Information covered in handover, information missing from handover
- Implications for client
- Current formats used
- Thoughts on potential isobar format

1. Current Handover

Describe how handover from your department to rural/metro facilities is currently completed….

Prompts:
- time frame prior to discharge/admission? When and how long does it take?
- who completes information
- standard format or variable?
- Verbal or written?
- Information included
- For all clients?

1a. Current Handover Procedures – Delivering handover

Describe how handover to your department from rural/metro facilities is currently received…

Prompts
- time frame prior to discharge/admission? When and how long does it take?
- who completes information
- standard format or variable?
- Verbal or written?
- Information included
- For all clients?

1b – Current handover procedures – Receiving handover

What do you expect to receive in handover?
- What are the most important parts to enable you to manage the client?
- What are the least important parts?
3. Importance of Handover

How would you rate the importance of handover information?
1 2 3 4 5 6 7
Not important Extremely important

Why?

How would you rate the current handover system?
1 2 3 4 5 6 7
Very poor Excellent

Why?

4. Incidents

Have you experienced any incidents relating to handover?
Prompts
- Was information missing that led to unfavourable consequences for you/the client?
- Did you report on these incidents?
- Do you know where to report these incidents?

4a Incidents relating to handover

What would have prevented this incident from occurring?

4a Prevention of incidents

5. Knowledge

How would you rate your knowledge of who and where to refer your clients for rural/metro services?
1 2 3 4 5 6 7
Very poor                                      Excellent

Why?

How would you rate rural/metro knowledge of who and where to refer clients for rural/metro services?

1  2  3  4  5  6  7

Why?

6. Solutions


Do you think the handover process from rural/metro to your facility could be improved? Y / N

How?

Do you think the handover process from your facility to rural/metro facilities could be improved? Y / N

How?

Would you prefer to use a format that is standard across all facilities? Y / N

- What should this include?
- What shouldn’t this include?
7. iSoBAR

What are your thoughts on iSoBAR? What’s needed? What’s not? What’s missing?

Identification
Situation and Status
Observations
Background and history
Assessments and Actions
Responsibility and Risk Management