



Government of **Western Australia**  
Department of **Health**  
North Metropolitan Health Service

# Disability Liaison Officer Project:

## Implementation of Pilot Role

### Phase 2

**Final Project Report**  
**North Metropolitan Health Service**  
**May 2015**



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## Executive Summary

The Disability Liaison Officer (DLO) project commenced in 2013 as a result of the 2011 Clinical Senate titled “Clinicians - do you see me?” Following the clinical senate, a series of recommendations were presented to the WA Health State Health Executive Forum (SHEF).

Subsequently, the Department of Health and the Disability Services Commission (DSC) co-funded Phase 1 of the DLO project. This included a scoping and needs analysis across both North Metropolitan Health Service (NMHS) and South Metropolitan Health Service (SMHS). The Phase 1 DLO project also included extensive stakeholder consultation with consumers, health clinicians, non-government agencies and disability specialist agencies, to gain further insight into the needs of inpatients with complex disability, and their experiences within the acute care health system. Phase 1 was completed in 2013 with the project results disseminated via the Disability Health Network (DHN) (Refer to appendices 1, 2).

This report outlines the outcomes of the implementation in Phase 2 of the pilot Disability Liaison Officer (DLO) role. The implementation occurred over a 7-month period at Sir Charles Gairdner Hospital (SCGH), in alignment with the recommendations from the DLO Phase 1 project. The Phase 2 project aim was to enhance the service to “inpatients with complexity of need” related to disability. Extensive planning of the Phase 2 project occurred over a 3-month period, to ensure a stable and effective platform within SCGH from which to enhance the delivery of consumer priorities. The Phase 2 project focussed on the disability cohort including the diagnoses of Amputee, Autism, Cerebral Palsy, Parkinson’s disease, Down’s syndrome and Intellectual Disability.

The key outcomes of the project included the provision of enhanced consumer care to a select disability cohort, with collection and analysis of related epidemiology and Activity Based Funding and Management (ABF/M) data. The analysis highlighted high re-admission rates within the patient groups of Amputees, Parkinson’s disease and Cerebral Palsy.

### Summary of project deliverables and outcomes

1. Development of an evidence-based “Disability Checklist”, to better record the disability cohort complexity and therefore appropriately manage an inpatient admission according to need.
2. Development of an “Early Identification of the Complex Patient” and a “Pre-admission Pathway”, as it was identified that early identification and discharge planning is vital for “at risk” patients with complexity of need.
3. Risk Screen - The “Mayo Risk Screen” was identified as an effective tool to assist in the early identification of the “at-risk” patient, allowing staff to prioritise and give proper consideration to complex needs.
4. Staff Education -Two education sessions facilitated by specialist disability agencies were held at SCGH to increase the profile of disability awareness and management.
5. Stakeholder engagement included identifying, engaging and partnering with community-based providers that service the disability cohort. This included

Autism Association of WA, Parkinson's WA, Senses, VisAbility, Carers WA and The Centre for Cerebral Palsy.

### **Key actions recommended for the planning of Phase 3 of the DLO Project:**

1. The DLO role to continue to be based at the SCGH site, as in DLO Project Phase 2
2. The DLO to provide liaison as a point of contact at SCGH for: consumers with disability; family; carers; external service providers; and hospital staff
3. The DLO to continue to engage and partner with both internal stakeholders and disability-related community agencies/service providers
4. That SWAT<sup>1</sup> and CoNeCT<sup>2</sup> and the relevant specialty areas continue to engage on how to target high-risk readmission groups such as the Amputee cohort
5. That the project continue to focus on: the elective admission pathway; to assist with early identification of the patient with disability and complexity of need; on their streamlined integration into inpatient complex care pathways; and enhanced community-supported discharge.
6. Further focus on “embedding” disability screening processes into current systems, to enable sustainable changes long term.
7. Enhanced engagement between the DLO project, Finance and Business, NMHS Public Health and Ambulatory Care, and NMHS reform, to remove duplication and increase effectiveness in working toward meeting operational goals and consumer needs.

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<sup>1</sup> SWAT – Strategic Winter Allied Team at SCGH

<sup>2</sup> CoNeCT - Complex Needs Coordination Team

## Section 1: Project Overview

### 1.1 Background

Following the DLO Phase 1 project completion, the A/Director General of WA Health, Director General of Disability Services Commission (DSC), and the Chief Executives of both NMHS and SMHS endorsed a Memorandum of Understanding (MOU) for Phase 2 to be completed over a 6-month period. Phase 2 of the DLO project commenced in January 2014 at SMHS and July of 2014 at NMHS. Different approaches to the implementation of Phase 2 were undertaken, however shared resources and lessons learnt from SMHS were beneficial in the progression of NMHS' Phase 2 project. The trial site chosen for the implementation of Phase 2 of the DLO project was SCGH, one of Australia's largest teaching tertiary hospitals with over 600 beds, and approximately 5,500 staff that treat over 420,000 patients every year. The Phase 2 implementation of the project was completed in January 2015.

### 1.2 Project aim and objectives

The DLO Phase 2 project aim was to implement a pilot DLO role within SCGH, to enhance the service to "inpatients with complexity of need" related to disability, and to provide a better hospital experience. The project objectives considered the final recommendations and outcome measures from Phase 1 (refer to appendix 3).

#### Proposed structure of the pilot DLO role:

- The DLO to be positioned at SCGH
- The DLO will be aligned with the Strategic Winter Allied Team (SWAT) – the multidisciplinary Inpatient Complex Needs Team based at SCGH
- The DLO will incorporate an organisational and consumer care component with the title of "Senior Project Officer" and "DLO" used interchangeably (refer to appendix 4)

Extensive planning of the Phase 2 project occurred over a 3-month period to establish a balance of organisational needs and consumer priorities. This ensured the DLO role did not duplicate existing services within the hospital (refer to appendix 5 for project boundaries). The project planning time was also utilised to develop resources for the DLO to use in clinical practice. For this reason, a defined disability cohort list was selected, to enable time to engage with the disability sector, which historically had limited links with the hospital. With lessons learnt and pathways developed from Phase 2, the intent is to include the full disability cohort in Phase 3.

#### The Phase 2 disability cohort included the following:

Age: 18 - 64

- |   |   |
|---|---|
| <ul style="list-style-type: none"><li>• Amputee</li><li>• Autism</li><li>• Cerebral palsy</li><li>• Down's syndrome (intellectual disability component)</li></ul> | <ul style="list-style-type: none"><li>• Intellectual disability</li><li>• Parkinson's Disease</li><li>• Vision Impairment / Blind</li><li>• Co-morbid Mental Health (e.g. disability the primary diagnosis)</li></ul> |
|---|---|

### 1.3 Context

At the commencement of the project, consideration of the strengths and risks that may potentially influence the project was undertaken. Potential risks were mitigated as fully as possible.

Strengths of the DLO Phase 2 project included:

- Funding and support of the project via endorsement from Department of Health, DSC and Chief Executive of NMHS
- Ongoing support for the Senior Project Officer from the DHN “Project Coordinating Group”
- Strong leadership with the DLO Steering group consisting of senior health managers and experienced clinicians
- Senior Project Officer being a highly experienced clinician and knowledgeable in local hospital process

Risks identified that had both direct and indirect influences on Phase 2 of the DLO project included:

- The 9-month delay between the completion of the DLO Phase 1 project in October 2013, and the commencement of Phase 2 in July 2014. This impacted on the project due to the changes of staff within the hospital, requiring time to re-engage and educate staff regarding the aim of the project
- Project scope changes – extra planning time required to define the DLO role and key performance indicators that met the organisational needs of the hospital, and also fulfil the intent of Phase 1 of the DLO project and Clinical Senate
- Health reforms such as ABF/ABM, Reconfiguration Projects and competing priorities within SCGH
- Resource risks such as limited project FTE, and project administration time impacting on the time available for consumer care
- Maintenance of engagement from Phase 1 stakeholders (internal and external to the hospital)

### 1.4 Resources

Funding of the Senior Project Officer/DLO role was obtained through the Swan Districts, Kalamunda Health service cost centre and positioned at SCGH for a period of 7 months at 0.8 FTE (Full time equivalent). This included 6-months for project implementation and subsequent time required for completion of the “Final Project Report”. Recruitment of the Senior Project Officer role was filled internally within NMHS. The DLO utilised the CoNeCT (Complex Needs Coordination Team) offices within Homelink (Ambulatory Care Program).

### 1.5 Governance

The “Project Coordinating Group” at the Department of Health provided support and governance to the NMHS and SMHS projects. This included representation from both the health and disability sector and reported directly to the DHN. Executive Sponsor Dr Tim Williams (Area Executive Director Medical Services NMHS) provided governance to the NMHS project. The program manager for the DLO pilot project was Rachele Humbert (A/Allied Health Director for NMHS). Jacinta Inman (A/SWAT Coordinator) and Carolyne Wood (Team Leader CoNeCT NMHS) provided operational line management to the Senior Project Officer.

The SCGH DLO Steering Group consisted of representation from SWAT, Physiotherapy, CoNeCT, Occupational Therapy, Social Work, Disability Access and Inclusion Program Officer (DAIP) and a member from the Consumer Advisory Council to provide advice and guidance for the project. The Senior Project Officer fulfilled the chair role and reported on progress and actions. Identified risks were escalated through the program manager and Executive Sponsor as required.

## Section 2: Project deliverables

The following deliverables were planned for the project period July to December 2014. Expected outcomes of the project were based on recommendations from Phase 1 of the DLO project and were linked to the National Safety and Quality Standards (NSQHS). The outcomes of the project deliverables are outlined in “Project outcomes section 3”.

### 2.1. Consumer Care

“Consumer care” consisted of the provision of needs-based liaison and coordination, development of a “Disability Checklist” and “Pre-admission Pathway” to enable hospital staff members to consider the holistic needs of consumers with complexity of need at the point of admission. In doing so, consumer needs are given due consideration and thereby contribute to a better hospital experience. Disability is not always identified by an individual as potentially impacting on their hospital stay. Therefore it was deemed a priority to focus on those that required assistance with navigating the complex hospital system.

#### **Consumer Care deliverables:**

1. Provision of targeted and needs-based liaison and case coordination/management as required for key patients and/or families and carer/s about their health issue(s), management and available health services
2. Develop a “Pre-admission planning pathway” to enable early identification of the patient with complexity of need
3. Integration of the pre-admission pathway into existing SWAT “Complex Care Pathways” aiming for sustainable change
4. Develop a “Disability Checklist” that that will be utilised as a screening tool for patients identified as having a disability (as per the WHO definition) to define individual care, equipment and discharge planning requirements on admission

*NSQHS Standard 12 - Assessment and Care planning*

*“The literature supports liaison and service coordination as a central “linkage point”. By assisting with navigating systems , positive outcomes for the consumer can be gained, and from a systems perspective positive outcomes can include stream lining, avoidance of duplication, potentially reduced hospital stays, prevention of admissions and possible reductions in health expenditure” (CDRP 2014).*

Developing a “Profile Summary” template to collate a central point of patient information was identified as a deliverable in the DLO Phase 1 project. This was not completed, as this is an ongoing task designated to a working group within the DHN.

### 2.2 Data collection

Data was collected over the duration of the project to ascertain how DLO intervention could potentially influence clinical outcomes. This included: epidemiological data to determine the number of patients admitted and readmitted in a 12-month period; a comparison with the number of patients seen by the DLO; and the associated ABF data to determine if intervention could potentially influence length of stay.

**Data collection deliverables:**

1. Activity based funding, length of stay (LoS) boundaries and indication of ABF high boundary point using the Independent Hospital Pricing Authority (IHPA)
2. Clinical input: Number referred to the DLO with associated time and clinical measures (assessment, case-management, discharge planning and outcomes)
3. Admission and readmission data with primary diagnosis pertaining to the DLO Phase 2 disability cohort

**2.3 Disability Profile and Partnerships**

Stakeholder engagement and networking was crucial in the establishment of referral pathways to external agencies that serviced the disability cohort in the community. Several agencies informed consumers/families and carers known to their service by advertising in agency newsletters that the DLO would be available for support during their inpatient stay.

**Disability Profile and Partnerships deliverables:**

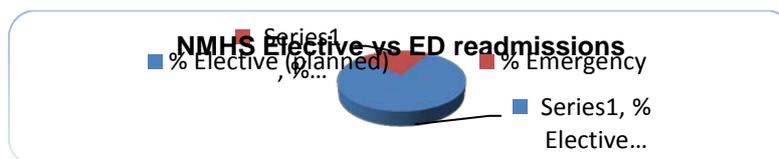
1. Identify and engage with key stakeholders within the disability sector that service the identified disability cohort (Phase 2)
2. Raising the disability profile within Sir Charles Gairdner Hospital by way of health promotion activities and coordination of two education sessions for frontline staff on clinically relevant topics pertaining to disability

*NSQHS Standard 11 Service Delivery, Standard 2 Partnering with consumers*

**2.4 Focus on elective admissions**

The implementation of the pilot DLO role at SCGH included consideration of epidemiology, ABF, and stakeholder consultation data sourced from the DLO Phase 1 project. This identified the largest volumes of consumers with complex disability at NMHS presented through the elective pathway as per figure 1 below.

This graph represents the volume of consumers that presented to NMHS with a principal diagnosis of disability, within 5 years of the first event over a 10-year period. Approximately 78% were through an elective (planned) admission versus 22% through the emergency department. Subsequently the focus of the Phase 2 project was on complexity of need related to disability, identifiable through the elective admission process. The working hypothesis was that planning for a complex disability admission would enable a positive outcome for consumers, clinical outcomes, and potentially Length of Stay (LoS).



**Figure 1: NMHS Elective (planned) vs. Emergency readmissions 2003-2011 Source: Epidemiology Branch, WA Department of Health 2013 (DLO Phase 1 Report 2013)**

## Section 3: Project outcomes

### 3.1.1 Patient Profile

The consumer care component of the DLO project was completed over a 4-month period. Referrals to the DLO occurred through community based and internal means. External stakeholders (agencies) that provide community-based services to the Phase 2 disability cohort were contacted, and a referral method established via paging the DLO directly or electronic communication (email).

During this period, 19 patients were seen (14 individuals, with 1 person having 4 admissions during this time). Of these referrals, 47% were with diagnosis of Cerebral Palsy, followed by 26% with Vision Impairment. All patients seen by the DLO returned to their original destination (either home or supported accommodation). Refer to Appendix 6 for further details regarding patient characteristics, referrer category, and admission type.

**Table 1: Summary of Patient Profile as seen by DLO over 4-month period**

<b>Number of referrals to DLO</b>	<ul style="list-style-type: none"> <li>• <b>19 referrals (including readmissions)</b></li> <li>• <b>14 individuals</b></li> </ul>	
<b>Gender</b>	Male = 9	
	Female = 10	
<b>Age</b>	Average 30.7 years	
	Range 19 – 58 years	
<b>Type of disability</b>	Cerebral Palsy	9
	Vision Impairment	5
	Intellectual disability	2
	Autism	1
	Amputee	0
	Parkinson's Disease	0
	Down's Syndrome	0
	Other	2
<b>Accommodation status and living arrangements</b>	Alone no support	Nil
	With others (carers)	9
	Group home	5
	Independent with formal support	4
<b>Discharge destination</b>	Home	14
	Supported accommodation	5

### 3.1.2 Epidemiology data

The NMHS Data Analyst (Department of Clinical Planning, SCGH) completed a data request pertaining to the Phase 2 disability cohort. The data request was submitted for the year 2013/2014 at SCGH to the Department of Epidemiology, WA Department of Health. This included the following:

1. Number of patients, separations, and readmission for patients with a principal and additional selected disability
2. Number and Percentage of Patients within a selected disability category that had a readmission related to their primary/principal diagnosis
3. Number of patients that had any of the selected conditions as a principal or additional diagnosis

**Table 2: Number of admissions, readmissions, by disability category, at Sir Charles Gairdner Hospital, 2013-2014**

Disability Category	Number of patients	Number of patients readmitted (12 month period)	% of patients readmitted
Cerebral palsy	24	6	25.0%
Parkinson's Disease	139	35	25.2%
Intellectual disability	45	5	11.1%
Vision Impairment/blind	42	<5	n.p.
Amputee	239	102	42.7%
Down's Syndrome	13	<5	n.p.
Autism	<5	<5	n.p.
Multiple disabilities	9	<5	n.p.

<5 - less than 5 records contribute to this cell and has been suppressed for confidentiality

n.p. - not published

Table 2 relates to the number of patients and disability category admitted over the 2013-2014 financial year at SCGH. The disability category with the largest number of admissions was Amputees (239) with a 42.7% re-admission rate within the 12-month period. This was followed by Parkinson's Disease, where 35 patients (25%) were re-admitted. Six patients with Cerebral Palsy were re-admitted, a 25% rate.

For the purpose of this report, further data on the Amputee cohort was analysed, due to the high re-admission rate identified. Data provided by the SCGH Finance and Business Officer determined the common Diagnostic Related Groups (DRG) within the Amputee cohort that re-presented, and the subsequent inpatient journey. The most common principal and secondary diagnoses were analysed in the 12-month period, 179 patients were admitted with 358 service events. **42% were first admissions**, while **58% represented a second or subsequent admission for the same patient**. Non-elective emergencies (n=152) accounted for nearly 43% of the admissions. Refer to Appendix 7 for a detailed analysis of the amputee cohort and readmissions data.

**Table 3: Number of separations, by disability category, at Sir Charles Gairdner Hospital, 2013-2014**

Disability Category	Number of separations
Cerebral palsy	33
Parkinson's Disease	189
Intellectual disability	52
Vision Impairment/blind	46
Amputee	431
Down's Syndrome	17
Autism	7
Multiple disabilities	11

Table 3 shows the disability categories that had the highest number of hospital separations for any diagnosis of disability: Amputee (431) and Parkinson's disease (189). The increase in hospital separations for the "Amputee" cohort is due to changes in care type following the acute stay  
(Website <http://www.health.wa.gov.au/activity/home/>)

**Table 4: Number of patients admitted by disability category, at Sir Charles Gairdner Hospital, 2013-2014 with associated numbers seen by DLO during the 4-month period**

Disability Category	Number of patients 12 month period	Number Seen by DLO in 4 month trial period
Cerebral palsy	24	9
Parkinson's Disease	139	0
Intellectual disability	45	2
Vision Impairment/blind	42	5
Amputee	239	0
Down's Syndrome	13	0
Autism	<5	1
Multiple disabilities	9	<5

Table 4 represents the numbers of patients admitted over a 12-month period, as compared with the numbers seen by the DLO over a 4-month period. Despite the high numbers of amputees and patients with Parkinson's disease admitted to SCGH, no referrals for these patients were made to the DLO. This is an area to investigate in phase 3.

**Table 5: DLO Time and Clinical Measures recorded over a 4-month period August to November 2014**

DLO Clinical Input	Percentage
Inpatient Assessment and Case Management	42%
Liaison Only	58%
Total hours	30 hours 5 minutes
Occasions of service (recorded on Allied Health statistics)	64 OOS

DLO clinical time and outcomes were recorded on Department of Health, Allied Health Statistics (AHS) for each patient seen. Additionally occasions of service (OOS) were recorded to capture clinical input provided during the course of the admission. A total of 30.5 hours and 64 OOS were attributed to the 19 patients seen by the DLO. Of the 19 patients referred, 58% required liaison only (including liaising with external providers, hospital staff or post discharge follow up) whilst 42% consisted of care-coordination and case management on an inpatient basis. Service coordination included service planning with the person, carer/family and service provider, navigation of the service system and providing information and support where required. It was apparent during the project that the DLO role had potential overlap with existing roles (e.g. Social Work, Care Coordinators etc.). Integration with existing multidisciplinary roles was at times challenging to navigate, with variances between specialty area staffing levels.

*“The DLO benefits our clients by providing information on hospital procedures and expectations”  
- Non government disability agency*

### 3.1.3 Activity Based Funding/Management

Activity Based Funding and Management (ABF/M) is the method through which the WA public health system is funded and managed. ABF/M facilitates a more efficient delivery of health services by measuring activity, and application of a determined efficient price. ABF/M was discussed extensively within the Phase 1 project report, and more information regarding ABF is available through the Department of Health Website: <http://www.health.wa.gov.au/activity/home/>. ABF data was collected on the patients seen by the DLO. Data for six of the nine consumers seen for intensive case management was available at the time of report writing.

**Table 6: Patient length of stay with associated ABF boundaries and outcomes**

	Patient number								
	Patient 1	Patient 2	Patient 3	Patient 4	Patient 5	Patient 6	Patient 7	Patient 8	Patient 9
<b>DRG codes</b>	I20Z	E74C	G66A	E62A	B64A	K60B	N/A	N/A	N/A
<b>Length of stay</b>	10	4	1	1	17	5	N/A	N/A	N/A
<b>High boundary</b>	8	15	6	28	39	12	N/A	N/A	N/A
<b>Low boundary</b>	1	1	1	3	4	1	N/A	N/A	N/A
<b>Outcome below within, above</b>	<b>Above</b>	<b>Within</b>	<b>Within</b>	<b>Within</b>	<b>Within</b>	<b>Within</b>	N/A	N/A	N/A
	<b>+ 2 days</b>								

Table 6 represents patients seen by the DLO with associated length of stay and ABF data. In an ABF operating model, an average length of stay is determined for each DRG along with a low-boundary and high boundary point

(source: [www.health.wa.gov.au/activity](http://www.health.wa.gov.au/activity)). Examples and case studies of the application of ABF were discussed extensively in the Phase 1 report, therefore for the purposes of Phase 2 it was decided by the Project Steering Group that the application of ABF boundary levels were pertinent rather than assigning a cost to each patient.

ABF data for the DLO cohort was sourced following the assignment of relevant DRGs (Diagnostic Related Group) from the clinical coders at SCGH. This is obtained from the “Patient discharge summary” and documentation related to the episode of care. In terms of ABF, the importance of clinical documentation to reflect the complexity of need is crucial in obtaining the optimal applicable funding for that episode of care. Once DRG’ are assigned, the Finance and Business Officer determined the length of stay, boundary levels, and the associated revenue. Of the data available for six patients at the time of report writing, five were within ABF boundary, and one patient over high boundary by two days.

### **3.1.4 Consumer Care**

Considerable planning was undertaken in the project planning and implementation phase to develop a DLO clinical process. A case management approach was utilised for consumers referred to the DLO based on complexity of need. Clinical resources were shared with the NMHS CoNeCT service. The “Initial Assessment” based on the “National Standards of Practice for Case Management”, is a comprehensive assessment utilised for information gathering regarding admissions history, complexity indicators, social and medical history, activities of daily living, functional status, identified risks and intervention indicators (CMSA, 2009). Following consent, results of the assessment were recorded in the inpatient notes and discussed with the patient/carer and multi-disciplinary team. Care management plans were provided for two community-based patients to assist with transition of care, with the duties and tasks delegated to each stakeholder recorded and disseminated.

The DLO had established links with the SWAT and CoNeCT services that enable patient flow through the hospital system for patients with complexity of need. The SWAT team exists at SCGH only, with core business to reduce length of stay for clients with complex needs that may delay discharge. SWAT links in with CoNeCT community based care coordination services, which enables a coordinated transition from hospital to home (Orifici & Wenban 2012).

*“The DLO was easy to access, and was great at initiating contact, arranging meetings etc.”  
- Non-government disability agency*

### **3.2 Disability Checklist (Screening tool)**

The “Disability Checklist” is a screening tool identified as a strong need by consumers and clinicians during the DLO Phase 1 project to assist in understanding the holistic needs of the patient at the point of admission. Following a review of the literature, the screening tool was developed and referenced by the DLO to outline all domains of care, equipment, and discharge planning requirements. Possible management strategies are also indicated. Feedback on what information should be included in the tool was also obtained through senior clinicians from each discipline (nursing, occupational therapy, physiotherapy, social work).

The tool has a semi-structured interview format so the consumer, carer/family member and service provider can be engaged in the planning of care. It is important to note the checklist, although comprehensive in nature, is designed so that patient care needs can be simply recorded and utilised as a handover and communication tool for clinical staff. In subsequent admissions, only **changes** in care, equipment or discharge planning requirements should be **noted and documented**. The tool will be utilised and evaluated in the DLO Phase 3 project. This tool could be utilised by nursing and allied health staff, hospital-wide, at the point of admission (refer to appendix 8).

### 3.3 Early Identification of the Complex Patient and Pre-admission Pathway

In Phase 1 of the DLO project, it was identified that there is a lack of early identification and consideration of care and discharge planning requirements of consumers with disability and complexity of need. This is outlined in the following diagram outlining the typical patient journey when appropriate planning is not undertaken.

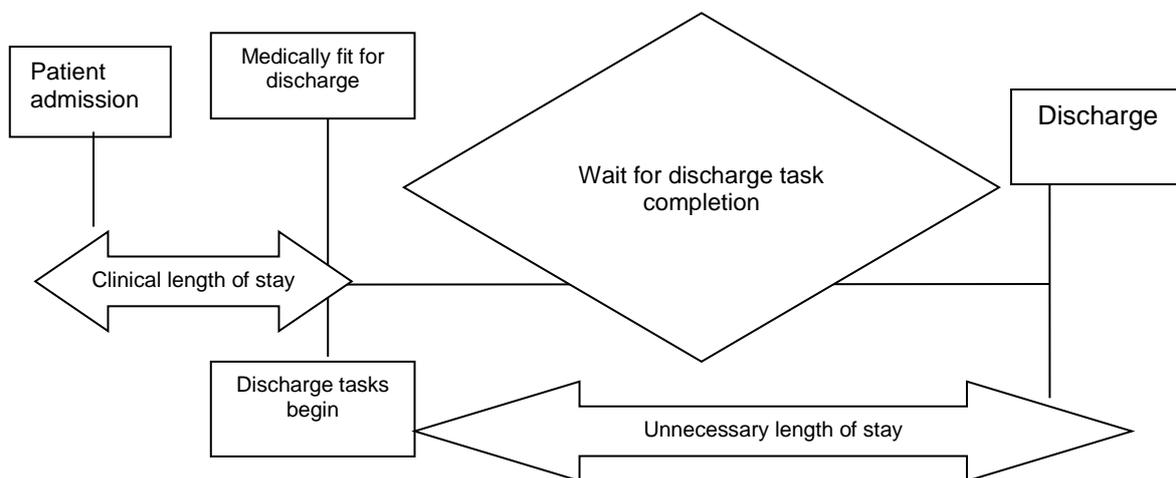


Figure 2: Typical patient journey for patients with complexity of need (Source: Clinical Operations Board Survey on Transitions; Advisory Board interviews and analysis)

The typical patient journey consists of patient admission, treatment of acute issues and then discharge planning once medically fit for discharge. This can involve an unnecessary length of stay for patients placing the patient at risk of functional decline due to the lack of consideration of the person’s holistic needs, or absence of carer/families or service providers in discharge planning (Nelson, 2001). Unnecessary length of stay also has implications in the current climate of activity based funding. Currently there are working parties within SCGH and WA Health in regards to developing effective discharge planning process, separate to the scope of the Phase 2 project.

#### 3.3.1 Pre-admission Pathway

The DLO Phase 2 project has identified that early discharge planning is vital for “at risk” patients with complexity of need and attempted to address the issue of unnecessary LoS with the following:

### **Planning for an admission:**

1. Development of the “Disability screening tool” to assist with admission/care planning and discharge needs (as discussed in section 3.2)
2. Development of a “Pre-admission pathway” to assist with **early identification** of the consumer with disability and complexity of need
3. “Pre-admission pathways” to Integrate with SWAT “complex care” inpatient pathways and CoNeCT or community providers to assist with transition from hospital to home

Discussions of the benefits of anticipating future needs for consumers with disability are discussed widely in the literature, including the following;

An individualised approach to planning and anticipating needs enables:

- Early intervention to ensure that services and supports can be in place when needed
  - Anticipation and management of risks (potential threats to health, wellbeing and information care arrangements)
  - Involvement and empowerment of the person family and carer in planning and goal setting
  - Holistic assessment taking account of the broader context of person’s history, family life, home environment
- (CDRP 2014; MOIRA 2001)*

At SCGH, an elective admission through the “Pre-admission clinic” (PAC) is a pathway whereby patients that have a confirmed surgical date attend an appointment prior to their surgery. When a patient has been waitlisted for surgery, a comprehensive health questionnaire is sent to the patient, then triaged by the PAC nurse. Following triage, if the patient is non-complicated, a PAC nursing phone call and investigations are completed. Patients deemed as requiring further assessment are scheduled a PAC appointment according to the medical specialty/consultant team.

An issue identified during Phase 1 of the DLO project was that there is no electronic means of identifying patients with disability and complexity of need. Identification of “at-risk” patients at SCGH is still reliant on nursing and allied health referrals, increasing risk, as patients that require intensive planning are not identified until late in the patient journey: **“Pathway 1: Current elective admissions with no DLO input”** (Please refer to Appendix 9).

To assist in resolving this, a pathway was developed outlining an early identification system, DLO involvement, and subsequent integration with “SWAT – complex care pathways”. This was entitled **“Elective admissions with DLO input: Early identification of the complex patient”**

**The “Early identification pre-admission pathway” consists of the following:**

- ✓ The pathway includes the “full” disability cohort
- ✓ PAC nurse contacts the DLO when the patient presents to the PAC appointment
- ✓ The DLO will complete a risk screen and triage the patients according to low, medium or high risk (Refer to section 3.3.1 “Risk Screen” for further details)
- ✓ Patients that are deemed medium to high risk require further assessment utilising the “Disability Checklist” to identify admission/care needs, equipment needs and discharge planning requirements in conjunction with the patient, family member, carer, or service provider
- ✓ Assessment outcomes to be documented in the outpatient and filed in the inpatient medical record
- ✓ Liaison with ward staff members to ensure complex issues are identified early in the patient journey
- ✓ Subsequent care coordination/case management on a needs basis discussed with ward staff to avoid duplication of service
- ✓ For patients that are frequent presenters to hospital, or require an intensive multi-disciplinary approach post-surgery, integration with the SWAT – “Complex Care Pathway” will address subsequent rehabilitation, case management and discharge planning needs.
- ✓ Management plans involving all relevant stakeholders to be provided to assist with transition from hospital to the community
- ✓ Transition to community providers or CoNeCT to assist with care coordination/ case management in the community as required

### **3.3.1 Risk Screen**

The “Mayo Risk Screen” was identified in the Phase 2 project as a tool that may assist in the early identification of the “at-risk” patient with disability and complexity of need, developed at the Mayo Clinic in Minnesota. Their screen was developed by evaluation of 24 patient variables, to identify those that were statistically significant in predicting patient need. Using a regression analysis for the variables, Mayo developed an “Early Screen for Discharge Planning” algorithm. The algorithm calculates a score for patients ranging from zero to 23. A score above 10 indicates the need for intensive discharge planning that enables clinicians to prioritise according to need (Bowles, Holland, O’Connor, 2010; The Advisory Board Company, International Clinical Operations Board, 2012).

Phase 3 of the DLO project will include utilising the tool as a triaging system, as discussed in the previous section. Refer to Appendix 10 for further details.

### **3.4 Staff Education**

Two education sessions to raise disability awareness were held for SCGH staff with invitations for nursing staff and allied health sent through several communication channels. Predominantly allied health staff attended these sessions. Discussions with nursing educators identified that nursing staff had their own structure and format for nursing education. It was decided that an internal document with key contacts from the disability sector was to be compiled so that educators could broker their own education sessions in the future. It was agreed that this document would be

updated long-term by the DAIP coordinator on a yearly basis and made available to staff. Refer to appendix 11 for further details of education sessions held at SCGH.

*“The DLO will further benefit clients by arranging relevant training to SCGH staff to increase awareness of ASD and implement effective behaviour management or calming strategies, where possible - Autism Association of WA”*

### **3.5 Stakeholder engagement**

Engagement of external and internal stakeholders was undertaken over the duration of the project. Stakeholders included staff internally and also specialist disability agencies and non-government organisations. Appendix 12 outlines the stakeholder, type of engagement and involvement within the DLO Phase 2 project. This included the Health Promotion event held at SCGH for “International Day of People with Disability” at which stakeholders were invited to promote their organisation at SCGH.

It is important to note that there is ongoing work with consumers and stakeholders in the community from the Disability Access and Inclusion Reference Group at SCGH. SCGH is committed to ensuring that people with disability, their families, and carers are not discriminated against and have access to the range of services, facilities, and information. This provides people with disability with the same opportunity, rights, and responsibilities enjoyed by other people in the community. Further information regarding the “Disability Access and Inclusion Plan 2012 -2017” can be accessed through the following link:

[http://www.scgh.health.wa.gov.au/Patients\\_Visitors/pdf/SCGH\\_DAIP.pdf](http://www.scgh.health.wa.gov.au/Patients_Visitors/pdf/SCGH_DAIP.pdf)

## **Section 4: Recommendations for further action**

Following the completion of the DLO Phase 2 project, the following detailed recommendations were compiled to address issues pertaining to SCGH and NMHS.

### **4.1 Recommendations for the DLO Phase 3 project, Sir Charles Gairdner Hospital**

Learnings from the DLO Phase 2 project and the following recommendations are to be considered in the planning of Phase 3 of the DLO Project.

#### **4.1.1 Disability Liaison Officer Role**

- The DLO role to continue to be based at the SCGH site as in DLO Project Phase 2.
- The DLO to continue the liaison role as a point of contact at SCGH for consumers with disability, family, carers, external service providers and hospital staff
- To expand the project to include the “full” disability cohort as identified in the DLO Phase 1 Project
- Learnings and resources from Phase 3 to be disseminated through appropriate communication channels to secondary NMHS sites

#### **4.1.2 Stakeholder engagement**

- The DLO to continue to engage with stakeholders (internal to the hospital) and community agencies/service providers that service the disability cohort in the community
- Internal stakeholder engagement to include Clinical Nurse Specialists that are positioned with medical specialities in Outpatient Clinics. The DLO can be utilised as a liaison and also educate on the use SWAT and CoNeCT teams to assist with complex patients that are frequent users of the hospital system
- The DLO to continue to engage with SWAT and CoNeCT team leaders to identify patients that are high risk and frequent presenters to the hospital system
- Further discussions with SWAT and CoNeCT and the relevant specialty areas on how to target high readmission-risk groups such as the amputee cohort as identified in Phase 2.
- Continued collaboration with the SCGH DAIP coordinator to update the “education resource document” for nursing and allied health staff, containing key contacts within the disability sector that can provide specialist disability training

#### **4.1.3 Early identification of the patient with disability and complexity of need**

- Continue to focus on the elective admission pathway to assist with: early identification of the patient with disability and complexity of need; integration into SWAT complex care pathways; and transitions to the community by utilising community service providers and/or CoNeCT services, for patients that are at risk of frequent readmissions to hospital
- Evaluation of resources such as the “risk screen” and the “disability checklist” as developed in Phase 2 of the DLO Project through staff interviews or questionnaires.
- Consideration of how to “embed” screening process into current systems to enable sustainable changes long term. Sustainability may be enhanced by long-term (permanent) establishment of positions in key areas such as SWAT

#### 4.1.4 Elective admission Pathway

- The DLO to utilise the pre-admission pathway for the patient at the point of pre-admission clinic as per Appendix 9 of this document
- PAC nurses to contact the DLO when the patient is at the point of pre-admission clinic to assist with admission planning. Pre-admission planning to include the consumer with disability, carer, family or service provider as required
- The DLO to complete the “ Mayo Risk screen” to identify patients that are high risk
- The DLO to utilise the “Disability Checklist” to summarise all care, equipment and discharge needs with subsequent documentation and liaison with ward staff as required.

#### 4.1.5 Data collection:

- Collection of epidemiology data to identify the highest numbers and re-admission of patients within the 12-month period **not** identified in Phase 2
- Use of ABF data to determine if DLO intervention influences clinical outcomes and potentially length of stay as identified in the DLO Phase 2 Project

#### 4.2 Recommendations for Sir Charles Gairdner Hospital

The following recommendations are to address the need for “early identification” of the patient with complexity of need at SCGH. Phase 2 of the DLO project demonstrated that when early identification takes place, the consumer’s holistic needs are given appropriate consideration. Early identification of the complex patient can also assist with reaching hospital efficiency targets and funding requirements.

#### Early identification of the complex patient through elective admissions:

- The identification of an **electronic means** of flagging complex patients was beyond the scope of the DLO Phase 2 project. During the course of the project it was noted that early identification might occur further back in the patient journey through consultation with SCGH surgical waitlist nurses. Identifying the patient at the point of waitlisting may assist the PAC nurses in the identification of complex patients prior to the PAC appointment.
- Currently there are working groups within the hospital that are addressing issues with patient flow, length of stay, and activity demands. The recommendation is that the outcomes of the DLO project feedback into these working groups to remove duplication and increase effectiveness in working toward meeting operational goals. These include the ABF/ABM Reconfiguration working groups NMHS Public Health and Ambulatory Care.
- Risk screen: the application of the screen to identify all at risk patients hospital-wide may benefit staff in the prioritisation of patients at high risk and may impact on length of stay. This recommendation is relevant to the considerations of the length-of-stay work stream at SCGH. A longer term aim may be to include the risk screen as an integrated element in Clinical Information systems. This could provide a consistent early identification of the complex patient, improve service delivery and contribute to better health outcomes.
- Establish a “Disability Working Group” at SCGH to include the following:
  - Comprising a multi-disciplinary group co-led by a senior nurse and a senior SWAT team member

- Collaboration with the DAIP officer to ensure that activities are noted and contribute to the Disability Access and Inclusion Plan at SCGH
  - The group to be utilised as “clinical champions” on a ward level, as a resource for staff and target education needs etc.
  - The group to initiate and implement quality improvement activities within the hospital
  - The group to assist in completing a snapshot/audit to determine where highest volumes of disability-associated work (and potential work) occur, and continued active identification of clients from areas that are high-risk
- Following the evaluation of the Disability “checklist”, it is recommended that the screening tool be considered for all patients at the point of an admission. This would require a working party, to implement and train staff in the use of the tool as discussed above.
  - An education resource outlining contacts within the disability sector to provide clinical education to staff was developed during the Phase 2 project. This has been distributed to the NMHS allied health director, and SCGH nursing educators. The DAIP coordinator has agreed to review the document annually. It is recommended that both nursing and allied health continue to promote the use of this.
  - Staff to encourage consumers to provide feedback to SCGH either through the staff member, or utilising the “Patient Liaison” service. Brochures outlining how a complaint can be managed titled “Patient Liaison – Tell us about your hospital experience” are located throughout the hospital. Staff can located the appropriate policies within SCGH including the following:
    - Disability Access and Inclusion Policy NMAHS C0C04
    - SCGH Complaint Management Hospital Policy #009
    - SCGH Carers Recognition Policy #192
    - Consumer Feedback NMHS C0C03

#### **4.3 Recommendations for North Metropolitan Health Service**

- Encourage consistent documentation methods across all sites, to include disability related to the admission to reflect the complexity of need, which is crucial in obtaining the optimal applicable funding available for that episode of care.
- Following the evaluation of the “disability checklist” tool, it is recommended that the resource be shared across NMHS to consider utilising at the point of planning and admission.
- Following the completion of Phase 3, the central resource document outlining key contacts within the Disability Sector to be shared with Nursing and Allied Health staff to access disability specific education.
- Phase 1 highlighted issues which consumers reported in submitting feedback or complaints to the health service. Staffs within NMHS are encouraged to manage feedback complaints effectively, as this can assist in service improvements and increase consumer confidence in the service. More information can be access through the NMHS “Consumer Complaints and Feedback Policy (NMHS C0C03).

- NMHS to consider the availability of the e-Learning Package entitled “Disability e-Learning” which includes information regarding barriers that the consumer with disability experience when interfacing with the health system. This includes information on the Disability Access and Inclusion Plan for each site, customer service, and policies regarding feedback and complaints and associated legislation. Currently this package is aimed at new staff members. The recommendation is that the “Education Working Group” responsible for determining the mandatory training requirements for staff consider making this e-Learning package mandatory for new and existing staff members. This may assist with organisational wide attitudinal changes that were highlighted as an issue in Phase I of the DLO project.
- NMHS to establish NMHS DAIP committee (as recommended by SHEF), to develop and coordinate site-based DAIPs and submit progress directly to the Disability Services Commission. This may assist with all sites accessing resources and educational tools as indicated above.

## Appendices:

### Appendix 1: Clinical Senate Report: “Clinicians – do you see me?”

Report can be accessed at the following link:

[http://www.clinicalsenate.health.wa.gov.au/debates/docs/Final\\_Report\\_June2011.pdf](http://www.clinicalsenate.health.wa.gov.au/debates/docs/Final_Report_June2011.pdf)

### Appendix 2: Disability Definition – World Health Organisation (WHO)

*(a) The person has a disability that is attributable to one or more intellectual, cognitive, neurological, sensory or physical impairments or to one or more impairments attributable to a psychiatric condition; and*  
*(b) Impairment or impairments are, or are likely to be, permanent; and*  
*(c) Impairment or impairments result in substantially reduced functional capacity to undertake, or psychosocial functioning in undertaking, one or more of the following activities:*  
*(i) Communication;*  
*(ii) Social interaction;*  
*(iii) Learning;*  
*(iv) Mobility;*  
*(v) Self care;*  
*(vi) Self management; and*  
*(d) The impairment or impairments affect the person's capacity for social and economic participation*  
*(e) The person's support needs in relation to his or her impairment or impairments are likely to continue for the person's lifetime.*  
*Considerations for Disability within the Hospital system will include factors or circumstances where impairments may be considered permanent, whether impairments result in substantially reduced functional capacity or psychosocial functioning, and the criteria to determine or circumstances where impairments may affect a person's social and economic participation.*

### Appendix 3: Disability Liaison Officer Final Project Report Phase 1

Disability Liaison Officer Project Phase 1 Final Project Report can be accessed via link:

[http://www.healthnetworks.health.wa.gov.au/docs/DLO\\_Project\\_Phase\\_1\\_Report.pdf](http://www.healthnetworks.health.wa.gov.au/docs/DLO_Project_Phase_1_Report.pdf)

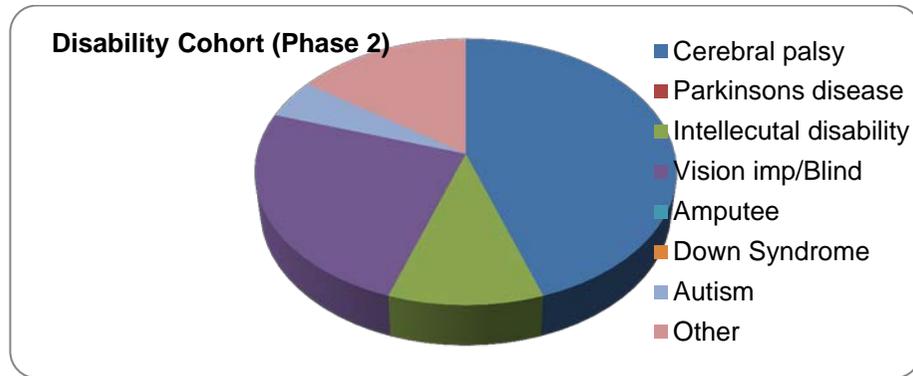
## Appendix 4: Phase 1 Report: Proposed structure of DLO within SWAT team

NMHS Proposed Structure for recommended option (DLO within SWAT inpatient complex care team) Sir Gairdner Hospital	
The SWAT inpatient complex care team for currently includes the following existing staffing levels for a 5-day a week service:	
0.5FTE P3 (SWAT Team Lead)	1.5 FTE P2 (Physiotherapy)
2.0FTE P2 (Occupational Therapy)	1.5 FTE P2 (Social Work)
0.8FTE P2 (Dietician)	0.9FTE P2 (Speech Pathologist)
1.0 FTE (Therapy Assistant)	<i>* (P2) denotes Senior Clinician, FTE = Full time equivalent Weekends - additional FTE including OT, PT and SP</i>

## Appendix 5: Project boundaries for the DLO Phase 2 project at SCGH

In scope	Out of scope
Adults aged 18-64 with a permanent disability accessing health care assessment, treatment and care planning at SCGH	Older adults (aged 65 and over)
Inpatient services	No identifiable discharge destination due to time risks of project
Outpatient and ambulatory care services (for patients that have had an inpatient stay)	Patients under the governance of the "Long stay younger people program" to avoid duplication
Mental health if included as part of dual diagnosis	Mental health as primary diagnosis
Disability cohort as defined by the World Health Organisation, International Classification of Functioning, Disability and Health (WHO, ICF)	Primary diagnoses as per Phase 1 project: <ul style="list-style-type: none"> <li>○ Dementia</li> <li>○ Behavioural disorders</li> <li>○ Pain disorders</li> <li>○ Respiratory disorders</li> </ul>
	<ul style="list-style-type: none"> <li>○ Children with disability as per clinical senate report</li> <li>○ Transition from child to adult care – as this responsibility has been delegated to the DHN</li> </ul>
	Emergency Department presentations
	Primary Health Care

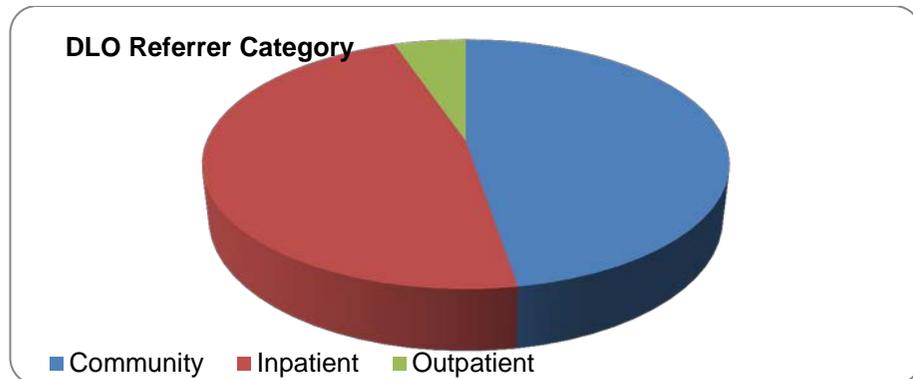
## Appendix 6: Summary of Patient characteristics



**Figure 3: Percentage of patients referred to DLO according to disability type**

### 1: Percentage of patients referred to DLO according to disability type.

Approximately 47% of patients referred to the DLO had cerebral palsy followed by 26 % with vision impairment. Nil referrals received for Amputees and Parkinson's disease from inpatient or community

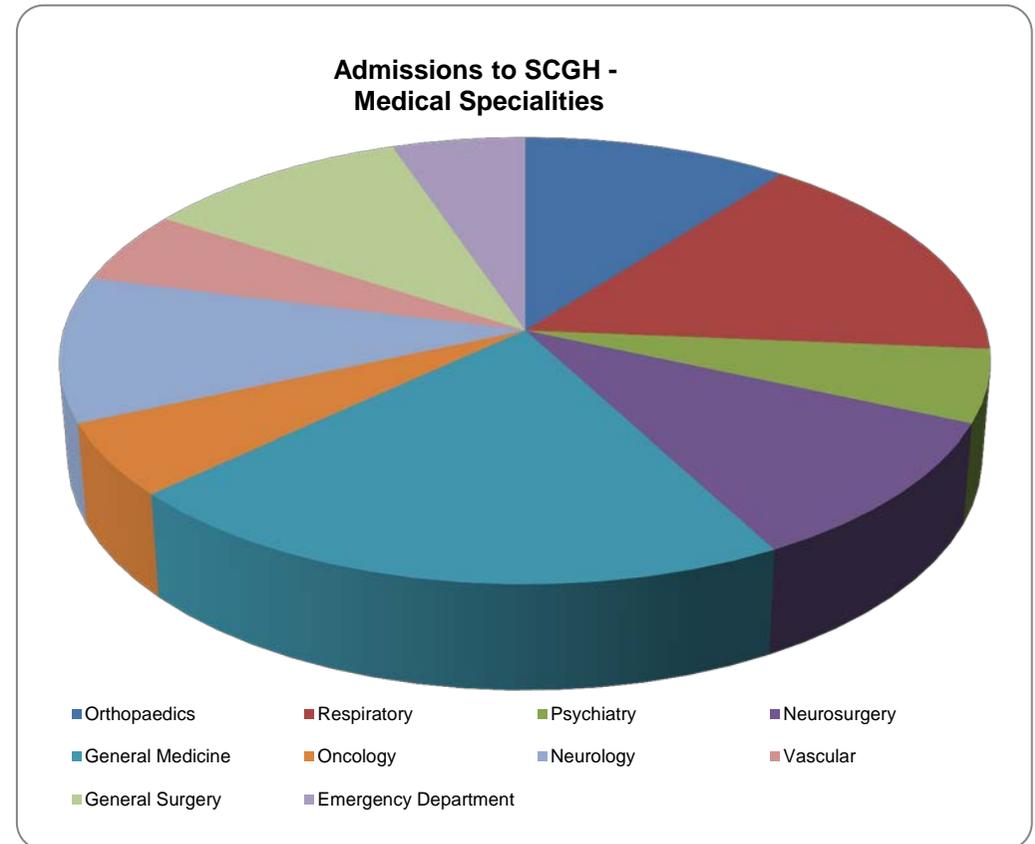


**Figure 4: Origin of referrals to DLO according to inpatient, outpatient, and community status**

The origins of referrals were recorded with approximately 48 % community based and 47% from inpatient clinicians

Community based referrals were made from specialist discharge agencies involved in the care of the consumer presenting to SCGH.

**Figure 3: Profile of "Inpatient admissions" and SCGH medical specialities referred to the DLO**



## Appendix 7: Analysis - Amputee cohort and re-admissions data (2013-2014) at SCGH

The following is a review of the three largest admitting specialities over a 12-month period at Sir Charles Gairdner Hospital (July 2013 – June 2014) for the amputee cohort. This includes General Medicine, Vascular Surgery and Infectious and Tropical Diseases. The major DRG codes were recorded with the total percentages and diagnoses in relation to the major DRG categories.

### 1. Medical specialty: General Medicine

- 37% of total re-admissions of the amputee cohort
- 131 patients admitted under General Medicine
- 107 patients discharged under General Medicine

General Medicine Specialty SCGH		
Major DRG (Diseases and Disorders)	% of total admissions of amputee cohort to General Medicine specialty	% of total admissions according to major DRG
Circulatory system	24%	50% heart failure and shock
Skin, subcutaneous tissue and breast	11%	53% cellulitis
Respiratory system	11%	53% Respiratory Infection/inflammation +ccc
Musculoskeletal system and connective tissue	10%	38% infection/inflammation bone/joint

### 2. Medical specialty: Vascular Surgery

- 101 patients admitted, 80 patients discharged by Vascular Surgery
- 15 patients discharged under Infectious and Tropical Diseases specialty
- 5 patients discharged under General Medicine specialty
- 1 patient discharged under Cardiovascular Surgery specialty

Vascular Surgery Specialty SCGH		
Major DRG (Diseases and Disorders)	% of total admissions of amputee cohort to Vascular surgery specialty	% of total admissions according to major DRG
Endocrine, nutritional and metabolic	40%	97.5% type 2 diabetes mellitus with foot ulcer due to multiple causes
Circulatory system	29%	59% atherosclerosis
Musculoskeletal system and connective tissue	20%	76% osteomyelitis of the foot and/or ankle

### 3. Medical specialty: Infectious and Tropical Disease (INTD)

While no patients in this cohort were admitted under INTD, 26 patients were discharged under the auspices of INTD with the vast majority, 92%, via Hospital in the home (HITH). This did not account for a high percentage of discharges across the cohort of interest, but the diagnosis descriptions were similar to those admitted under Vascular Surgery.

Infectious and Tropical Diseases Specialty SCGH		
Major DRG (Diseases and Disorders)	% of total admissions of amputee cohort to Vascular surgery specialty	% of total admissions according to major DRG
Musculoskeletal system and connective tissue	62% (n=16)	69% osteomyelitis of lower limb/foot/ankle
Endocrine, nutritional and metabolic	19% (n=5)	100% type 2 diabetes mellitus with foot ulcer due to multiple causes

**Table 7: Age of patients at first and subsequent events for the amputee cohort, 2013-2014 at Sir Charles Gairdner Hospital**

Age distribution at first event (proportion of total No. of patients)	Age distribution at subsequent events (proportion of total No. of patients)
50-59 n=23 (13%)	50-59 n=17 (9%)
60-69 n=57 (32%)	60-69 n=58 (32%)
70-79 n=39 (22%)	<b>70-79 n=50 (30%)</b>
80-89 n=35 (19%)	<b>80-89 n=38 (21%)</b>

The highest proportion of people admitted in the 12-month period fell in the 60-69 year age group. Of those readmitted, a greater proportion were seen in the 70-79 year old range than any other group. Due to this age range being outside the scope of the DLO Phase 2 project, the DLO saw nil patients from this age group.

Table 8 represents the total number of patients (179) from the amputee cohort over the 2013-2014 period. 19 patients had **four or more admissions**. This accounted for a quarter of all service events in the cohort. As demonstrated in Table 4 below, the range of re-admissions was from 4 - 11 in a 12-month period. Of these, zero patients were known to the SWAT or CoNeCT service to assist with case coordination and assistance with decreasing readmissions from an inpatient or community perspective. Further discussion with the SWAT and CoNeCT team leaders will benefit in targeting this group and the medical specialties of general medicine and vascular surgery respectively.

**Table 8 Amputee cohort: Number of patients with multiple re-admissions within a 12- month period (2013-2014)**

Total Number of patients = 19				
Number of readmissions	Number of patients		Known to SWAT	Known to CoNeCT
4	10 patients		No	No
5	2 patients		No	No
6	1 patients		No	No
7	2 patients		No	No
9	1 patient Age: 60-69	<ul style="list-style-type: none"> <li>3 x admissions Cardiovascular medicine</li> <li>3 x admission General medicine</li> <li>3 x Vascular Surgery</li> </ul>	No	No
11	1 patient Age: 70-79	<ul style="list-style-type: none"> <li>7 admissions to General Medicine</li> <li>4 admissions to Vascular Surgery</li> </ul>	No	No

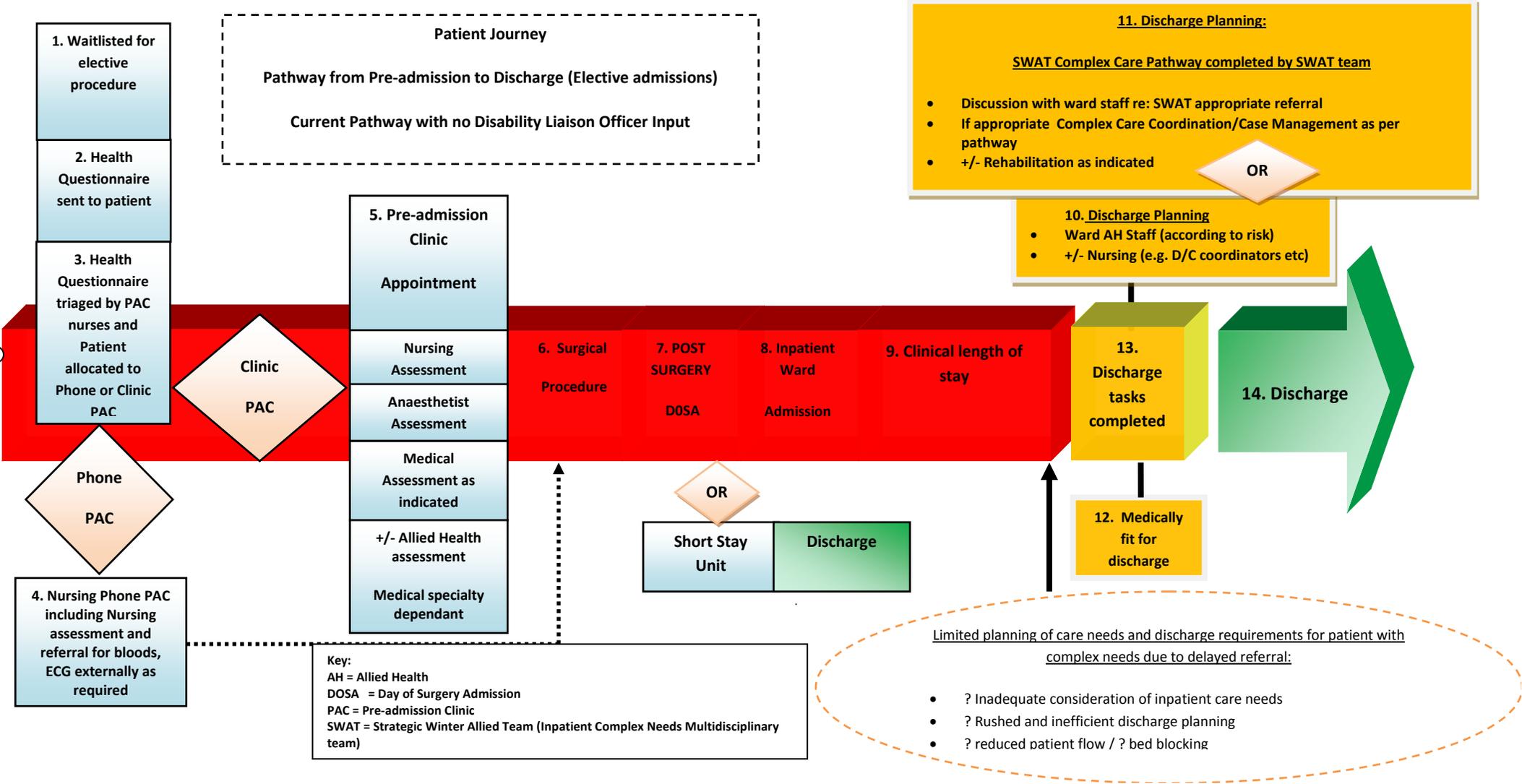
# Appendix 8: Disability Checklist (Screening Tool)

Screening tool is to indicate *level of functioning prior to admission* to assist the clinician in planning care, equipment and discharge planning requirements at the point of admission

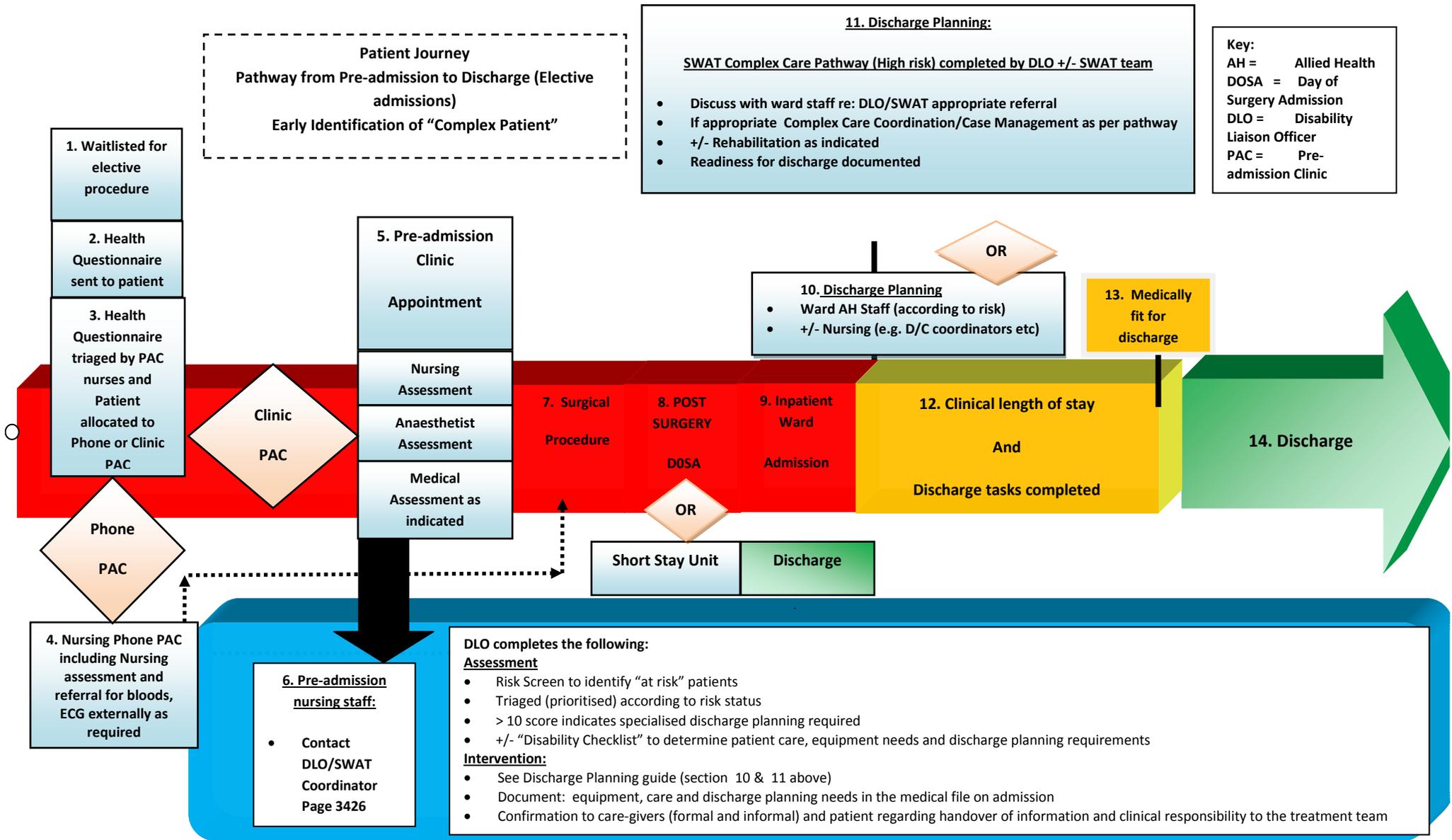
Cognition/ Perception	Communication	Sensory Impairment	Mobility/ Transfers	Mental Health/Behaviour	Personal Care			
	Communication Disorder (name)		Indoor / Outdoor	Behaviour History:	Eating/ Meal time	Nutrition	Self- Care	Bowel/Bladder Function
<input type="checkbox"/> Changes in cognitive function  State Timeframe?  <input type="checkbox"/> Consent: <input type="checkbox"/> Guardian: <input type="checkbox"/> Administrator  <b>Intellectual Disability:</b> <input type="checkbox"/> Mild <input type="checkbox"/> Moderate <input type="checkbox"/> Severe	<input type="checkbox"/> <b>Receptive dysphasia</b> (Difficulty understanding information)  <input type="checkbox"/> <b>Expressive dysphasia</b> (Difficulty talking/slurred speech)  <input type="checkbox"/> <b>Aphasia</b> (no speech /no intelligible speech) <input type="checkbox"/> Difficulties with Reading / Writing  <b>Communication strategies used:</b> <input type="checkbox"/> Talks in sentences <input type="checkbox"/> Uses Words/phrases <input type="checkbox"/> Uses Sign or gesture <input type="checkbox"/> Answers in Yes/No response(s) <input type="checkbox"/> Communication board/aid <input type="checkbox"/> Can write/draw <input type="checkbox"/> Understands (words or pictures) <input type="checkbox"/> CALD speaking background	<b>Vision impairment</b> <input type="checkbox"/> <b>Indicate type of impairment</b> <input type="checkbox"/> Mild <input type="checkbox"/> Moderate <input type="checkbox"/> Severe  <b>Strategies Used</b> <input type="checkbox"/> Aids e.g. glasses <input type="checkbox"/> Structure of environment <input type="checkbox"/> Verbal cues <input type="checkbox"/> Tactile (touch)  <b>Hearing impairment:</b> <input type="checkbox"/> Mild <input type="checkbox"/> Moderate <input type="checkbox"/> Severe  <b>Communication strategies used</b> <input type="checkbox"/> Communication aid(s) <input type="checkbox"/> Wears hearing aids <input type="checkbox"/> Can read written information <input type="checkbox"/> Uses sign gestures <input type="checkbox"/> Understands gestures <input type="checkbox"/> Visual cues <input type="checkbox"/> Reduce distractions e.g. .TV	<b>Indicate type of disability</b> <input type="checkbox"/> Long standing <input type="checkbox"/> Stable <input type="checkbox"/> Temporary <input type="checkbox"/> Improving <input type="checkbox"/> Deteriorating  <input type="checkbox"/> <b>Falls history</b>  <input type="checkbox"/> <b>Mobility aid:</b> <input type="checkbox"/> Check current method <input type="checkbox"/> Assisted <input type="checkbox"/> x 1 <input type="checkbox"/> x 2  <input type="checkbox"/> <b>Mode of communication to ensure safety</b>  <input type="checkbox"/> Determine how to communicate pain/discomfort when mobilising  <b>Transfers:</b> <input type="checkbox"/> Transfer aid: <input type="checkbox"/> hoist: moving from bed to bath/chair <input type="checkbox"/> Assisted <input type="checkbox"/> x 1 <input type="checkbox"/> x 2  <b>Positioning:</b> <input type="checkbox"/> Splints /body braces <input type="checkbox"/> Chair <input type="checkbox"/> Bed	<b>Indicate type of behaviour</b>  <input type="checkbox"/> History <input type="checkbox"/> When most likely to occur? <input type="checkbox"/> What happens before? <input type="checkbox"/> What activity makes more likely? <input type="checkbox"/> Medical cause?  <b>Overview:</b> <input type="checkbox"/> Frequency <input type="checkbox"/> Setting <input type="checkbox"/> Duration <input type="checkbox"/> Severity <input type="checkbox"/> Sleep patterns <input type="checkbox"/> Triggers <input type="checkbox"/> Verbal aggression <input type="checkbox"/> Physical aggression <input type="checkbox"/> Self harm  <b>Medication:</b> <input type="checkbox"/> Current medication regime <input type="checkbox"/> Non compliance  <b>Mood disorder:</b> <input type="checkbox"/> Anxiety <input type="checkbox"/> Psychosis <input type="checkbox"/> Depression <input type="checkbox"/> Other	<input type="checkbox"/> Independent <input type="checkbox"/> Requires assistance <input type="checkbox"/> existing management plan <input type="checkbox"/> Upper Limb function (utensils)  <b>Tube Feeding:</b> <input type="checkbox"/> PEG <input type="checkbox"/> Naso-jejunal (NJN) <input type="checkbox"/> Naso-gastic (NG)  <b>Feeding regime:</b> Volume:      Time: Type of Feed: Assisted:      Self:  <b>Swallow:</b> <input type="checkbox"/> Position appropriately in sitting (may include wheelchair) <input type="checkbox"/> Modification of fluids/meal <input type="checkbox"/> Dysphagia: Has difficulty swallowing chokes with eating/drinking <input type="checkbox"/> History of recurrent chest infections	<b>Nutrition:</b> Height Weight: <input type="checkbox"/> Loss of weight without trying? Kg  <input type="checkbox"/> Poor oral intake: <input type="checkbox"/> Poor appetite <input type="checkbox"/> Nausea/vomiting <input type="checkbox"/> Pain <input type="checkbox"/> Breathing difficulties <input type="checkbox"/> Other  <b>Diet:</b> <input type="checkbox"/> Soft puree <input type="checkbox"/> Minced <input type="checkbox"/> As desired  <b>Nutritional Supplement</b> <input type="checkbox"/> Specify type and quantity <input type="checkbox"/> Food allergy <input type="checkbox"/> Food intolerance <input type="checkbox"/> Other desired	<b>Bathing</b> <input type="checkbox"/> Level of assistance required <input type="checkbox"/> Equipment required  <b>Toileting</b> <input type="checkbox"/> Level of assistance required <input type="checkbox"/> Equipment required <input type="checkbox"/> Regular toileting/prompting <input type="checkbox"/> Monitoring of physical and emotional state <i>*Bowel and bladder function compromised with prolonged bed rest, limited movement, reduced oral intake, anxiety*</i>  <b>Grooming/Oral Hygiene</b> <input type="checkbox"/> pre-existing Dental issues <input type="checkbox"/> Level of assistance required <input type="checkbox"/> Consider comfort level <i>*Developmental disability – at risk of poor oral health</i>	<b>Bowel Function</b> <input type="checkbox"/> Recent changes <input type="checkbox"/> Constipation <input type="checkbox"/> Diarrhoea <input type="checkbox"/> Incontinence  <b>Bladder Function</b> <input type="checkbox"/> Prompting <input type="checkbox"/> Wetting accidents <input type="checkbox"/> Nocturia <input type="checkbox"/> Incontinence  <b>Management</b> <input type="checkbox"/> Toileting regime <input type="checkbox"/> Continence aids  <b>Catheterisation:</b> Type: Regime:  <b>Skin Integrity</b> <input type="checkbox"/> Liaise with ward nursing staff re: assessment and management <input type="checkbox"/> Pre-existing ulcer Stage Care plan

<b>DETAILS/ MANAGEMENT</b>	1. Document current methods of completing tasks (e.g. outpatient notes, inpatient notes or nursing admission forms) 2. Document issues identified during the assessment and liaise with relevant disciplines regarding findings and management strategies								
<b>Cognition/Perception</b>	<b>Communication</b>	<b>Sensory Impairment</b>	<b>Hearing</b>	<b>Mobility/ Transfers</b>	<b>Mental Health Behaviour</b>	<b>Eating</b>	<b>Nutrition</b>	<b>Personal Care</b>	<b>Discharge Planning</b>
<input type="checkbox"/> OT referral if changes in cognition identified	<input type="checkbox"/> Outline prompts or aids to assist staff in communicating	<input type="checkbox"/> Patient/family/carer to state capabilities and requirements	<input type="checkbox"/> Patient/family/carer to state capabilities and requirements	Please remind patient that mobility equipment needs to be brought into hospital	<input type="checkbox"/> Management strategies when distressed	List any special dietary needs	<input type="checkbox"/> OT referral Eating assessment  Adaptive cutlery  Positioning Modification of environment	<input type="checkbox"/> OT referral if changes in functional ability impact on ability to perform Bathing/Dressing Toileting Grooming Eating/Drinking	<input type="checkbox"/> formal support List all key contacts including external agencies <input type="checkbox"/> Check Hospital Carer Policy
<input type="checkbox"/> Document contact details of G/A	<input type="checkbox"/> SP referral re: establishing communication strategies	<input type="checkbox"/> OT referral modification of environment	<input type="checkbox"/> Speech pathologist referral for communication strategies	<input type="checkbox"/> Refer to Physiotherapy for mobility assessment	<input type="checkbox"/> Consider psychiatry input	Indicate how staff can assist with meals and drinks	<input type="checkbox"/> Speech Pathologist referral	*Close monitoring and observation of persons physical and emotional state as this may be exacerbated during inpatient stay	Document Informal support (e.g. family, unpaid carer – details and what they provide),
Refer to Discharge Planning section	<input type="checkbox"/> OT referral re: adapted switches/ call-bell for inpatient stay	<input type="checkbox"/> Utilise “ Bed-signs” for vision impairment above patient bed	<input type="checkbox"/> Utilise “ Bed-signs” for hearing impairment above patient bed	<input type="checkbox"/> Refer to OT to assess for equipment needs	<input type="checkbox"/> Consult Community Mental health case worker	Complex disability – check meal management	<input type="checkbox"/> Dietician referral for issues identified	<input type="checkbox"/> OT referral re seating/cushion/ positioning <input type="checkbox"/> Consider Dietician referral for nutritional risk screen	<input type="checkbox"/> Social Work referral re: supports post discharge or general support required as in-patient
	<input type="checkbox"/> Arrange for interpreter if from CALD speaking background			<input type="checkbox"/> Nursing Falls Risk assessment interventions as per hospital policy	*Note combination of unfamiliar environment illness, pain, or uncomfortable procedures can increase behavioural symptoms.	<input type="checkbox"/> Speech Pathologist referral		Reminder for patient to bring in current cushion/aids from home	<input type="checkbox"/> Provide a comprehensive discharge summary with post-discharge plan to patient and all parties involved in community care

# Appendix 9: Patient Journey - Elective admission pathway



Author: Ann Walker NMHS Senior Project Officer: January 2015, V1.0



## Appendix 10: Risk screen

Figure 5: Mayo Risk Scoring Algorithm and Disability Rankin Score

### Mayo Clinic's Risk Scoring Algorithm



Variable	Scoring		Multivariate Statistics	
	Coefficient	Algorithm Points	Odds Ratio (95% Confidence Interval)	p
Constant	-4.59			<0.001
<b>Age (years)</b>				
18-44	0	0	1.0 (reference)	-
45-64	1.02	4	2.8 (1.0, 7.7)	0.051
65-79	1.58	6	4.9 (1.8, 12.9)	0.002
80+	1.98	8	7.3 (2.6, 20.6)	<0.001
<b>Disability</b>				
No significant disability	0	0	1.0 (reference)	-
Slight disability	0.81	3	2.3 (1.2, 4.2)	0.012
Moderate or greater disability	2.26	9	9.6 (4.9, 18.7)	<0.001
<b>Prior living status</b>				
With others	0	0	1.0 (reference)	-
Lived alone	0.75	3	2.1 (1.3, 3.5)	0.003
Lived in facility	0.09	0	1.1 (0.4, 2.9)	0.823
<b>Self-rated walking limitation</b>				
No	0	0	1.0 (reference)	-
Yes	0.84	3	2.3 (1.5, 3.7)	<0.001

Source: Mayo Clinic, Rochester, Minnesota, US; Holland D, et al. "Development and Validation of a Screen for Specialized Discharge Planning Services." *Research*. January/February 2008, vol 10(1), pp 62-71.

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### Rankin Disability Score



**Rankin Disability Scale**

**Grade 1 – No significant disability. Able to carry out all usual duties**  
 [Note: This does not preclude the presence of weakness, sensory loss, language disturbance, etc., but implies that these are mild and do not or have not caused patient to limit his activities, e.g. if employed before, is still employed at same job]

**Grade 2 – Slight disability. Unable to carry out some of previous activities but able to look after own affairs without assistance**  
 [e.g., unable to return to prior job; unable to do some household chores, but able to get along without daily supervision/help]

**Grade 3 – Moderate disability; Requiring some help but able to walk without assistance**  
 [e.g., needs daily supervision; needs assistance with small aspects of dressing or hygiene; unable to read or communicate clearly. Note: AFO [ankle-foot orthosis] or cane does not imply needing assistance]

**Grade 4 – Moderately severe disability. Unable to walk without assistance and unable to attend to own bodily needs without assistance**  
 [e.g. needs 24 hour supervision and moderate-maximum assistance on several ADL's, but still able to do some activities by self, or with minimal assistance]

**Grade 5 – Severe disability. Bedridden, incontinent, requiring constant nursing care and attention.**

[BACKOUT](#)

Source: Mayo Clinic, Rochester, Minnesota, US; Bowles K, Holland D, O'Connor M. "A Research and Clinical Partnership to Improve the Identification of Hospitalized Patients in Need of Post-Acute Care." Presentation, 2010 National Association for Home Care & Hospice, October 2-6, 2010.

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## Appendix 11: Disability awareness and staff education sessions at SCGH

### 1. Nulsen Disability Services Complex Disability and Hospitalisation:

This session was held on 25<sup>th</sup> November 2014 with 25 attendants from allied health disciplines. The evaluation consisted of a pre-session survey and post-session survey with 20 people completing the survey. All results were uploaded onto "Survey Monkey". The survey evaluated staff knowledge prior and following the session:

- Rate current knowledge of complex disability
- Rate knowledge of issues faced by people with disabilities in hospital
- Rate knowledge of discharge planning within context of supported accommodation

All respondents reported an increase in knowledge after the session with suggested ways to implement knowledge in their work areas. For further details in regards to the session, refer to survey monkey results:

Website: <https://www.surveymonkey.com/results/SM-8V76D63V/>

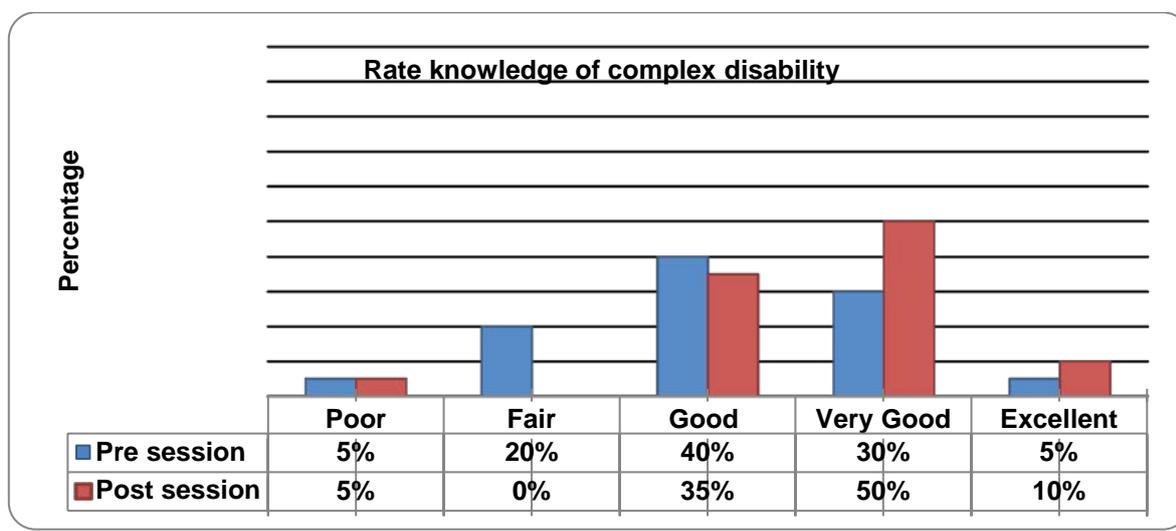


Figure 3: Improved knowledge of "Complex Disability and Hospitalisation" post education session

## 2. Autism Association of Western Australia – “Positive Behaviour Strategies”

This session was held on 1<sup>st</sup> December 2014 with 12 attendants from allied health and nursing disciplines. The evaluation consisted of a pre-session survey and post-session survey with all attendees completing the survey. All results were uploaded onto “Survey Monkey”.

The survey evaluated staff knowledge prior and following the education session:

- **Rate knowledge of Autism Spectrum Disorders (ASD)**
- **Issues that people with ASD face in hospital**
- **Knowledge of "Positive Behaviour Strategies"**
- 

All respondents reported an increase in knowledge after the session with suggested ways to implement knowledge in their work areas. For further details in regards to the session, refer to survey monkey results:

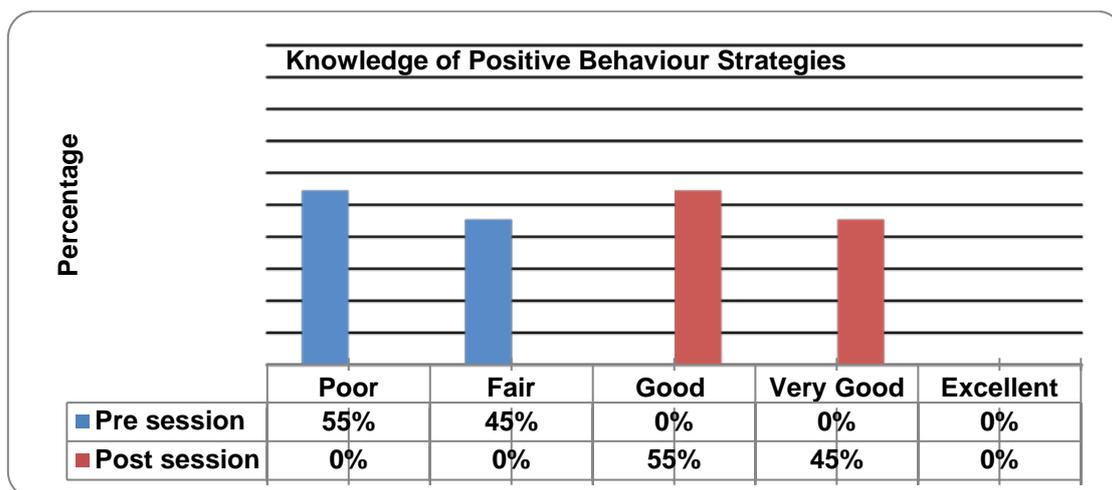


Figure 4: Improved Knowledge of “Positive Behaviour Strategies” following education session

Website: <https://www.surveymonkey.com/results/SM-ZRD2C63V/>

## Appendix 12: Stakeholder engagement

Table 7: Methods of engagement with internal and stakeholders relevant to DLO Phase 2 project

Engagement	Stakeholders	Stakeholder Involvement
Face to face meeting	1. Autism Association	<ul style="list-style-type: none"> <li>• Staff education to SCGH 1<sup>st</sup> December 2014 – “Positive Behaviour Strategies”</li> <li>• Health Promotion event “ International Day of People with Disabilities”</li> <li>• Established Referral method to DLO</li> <li>• Evaluation/Feedback request sent</li> </ul>
	2. Carer’s WA	<ul style="list-style-type: none"> <li>• Communications to Carers WA clients regarding commencement of DLO role in Newsletter</li> <li>• Established Referral method to DLO</li> </ul>
	3. Nulsen Disability Services	<ul style="list-style-type: none"> <li>• Staff education November 25<sup>th</sup> 2014 – “Complex disability and hospitalisation”</li> <li>• Established referral method to DLO</li> <li>• Evaluation/Feedback request sent</li> </ul>
	4. Senses	<ul style="list-style-type: none"> <li>• Health Promotion event “ International Day of People with Disabilities”</li> <li>• Established referral method to DLO</li> <li>• Evaluation/Feedback request sent</li> </ul>
	5. VisAbility	<ul style="list-style-type: none"> <li>• Health Promotion event “ International Day of People with Disabilities”</li> <li>• Communications to VisAbility clients regarding commencement of DLO role in Newsletter</li> <li>• Established referral method to DLO</li> <li>• Evaluation/Feedback request sent</li> </ul>
Email Contact	1. Parkinson’s WA	<ul style="list-style-type: none"> <li>• Health Promotion event “ International Day of People with Disabilities”</li> <li>• Established Referral method to DLO</li> <li>• Evaluation/Feedback request sent</li> </ul>
	2. The Centre for Cerebral Palsy	<ul style="list-style-type: none"> <li>• Invitation to participate in Health Promotion event “ International Day of People with Disabilities”</li> <li>• Established Referral method to DLO</li> <li>• Evaluation/Feedback request sent</li> </ul>

Engagement	Stakeholders	Stakeholder Involvement
Stakeholders DLO Phase 1 participants	Stakeholder Phase 1 list	Please note communications to the Disability Sector completed via Tricia Dewar (Principal Consultant) 1. Health (NMHS) 2. Disability Sector 3. Consumers
Internal Stakeholders	1. Nursing staff	Face to face meetings: <ul style="list-style-type: none"> <li>A/Co-director Nursing (Medical), Nursing Education Co-Director</li> <li>Clinical Nurse Specialists, Clinical Nurses', Nursing Education</li> </ul>
	2. Allied Health staff	<ul style="list-style-type: none"> <li>Email contact</li> <li>Face to face on wards</li> </ul>
	3. Medical staff	<ul style="list-style-type: none"> <li>Via Email (Stakeholders from Phase 1)</li> </ul>
	All SCGH staff	<ul style="list-style-type: none"> <li>Advertisement: Staff Bulletin at the commencement of the DLO role</li> </ul>
DLO Presentations	1. Stakeholder Engagement	<ul style="list-style-type: none"> <li>NMHS and SMHS Project Officers invitations send to Phase 1 Stakeholders</li> <li>NMHS and SMHS Update presentation held 5<sup>th</sup> November 2013 at SCGH</li> </ul>
	2. Ethic Disability and Advocacy Centre Networking Meeting	<ul style="list-style-type: none"> <li>Presentation completed December 2<sup>nd</sup> 2014</li> <li>Interagency group meeting consisting of consumers, Disability Sector (government and non-government)</li> <li>Update of DLO role at SCGH</li> </ul>
	3. OPH DAIP Reference Group	<ul style="list-style-type: none"> <li>Update of DLO role at SCGH for the Disability Access and Inclusion" Reference Group at Osborne Park Hospital</li> </ul>
Health Promotion Event	<ol style="list-style-type: none"> <li>Autism Association</li> <li>Parkinson's WA</li> <li>Senses</li> <li>VisAbility</li> <li>SCGH DAIP</li> </ol>	<ul style="list-style-type: none"> <li>Coordination of "International Day of Disabilities" event by DLO</li> <li>Advertised in SCGH staff bulletin, and News and Announcements: Staff intranet (CHIPS)</li> <li>Venue: Watling Street</li> <li>Sir Charles Gairdner Hospital</li> <li>11:00am – 14:00pm</li> <li>Target audience Staff, consumers, general public Approximately 40 people attended</li> </ul>

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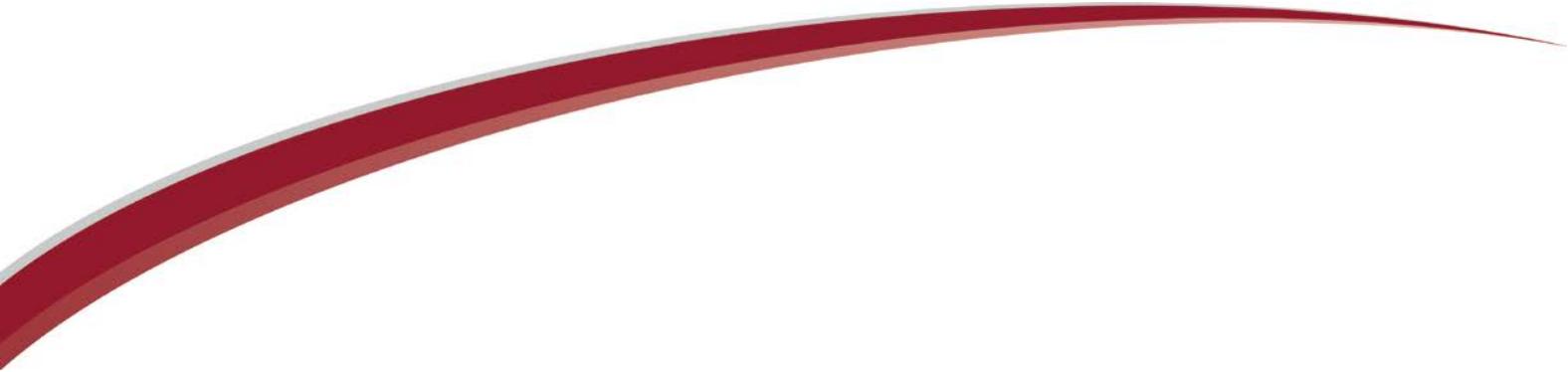
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