



# Engagement, Attendance and Current CHF Rehabilitation Practise in Australia

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## Background

In Australia Heart Failure has a national cost to healthcare of \$3.1 billion (Chen et al., 2017). While exercise has been shown to improve quality of life and physical function and reduce hospital admission rates in people with CHF, engagement in rehabilitation is poor (Palmer, 2018).

## Methods

- Aims:**
- To identify barriers to engagement in rehabilitation for people with Chronic Heart Failure
  - To identify potential strategies for engagement in rehabilitation for people with Chronic Heart Failure
  - To survey Chronic Heart Failure programs running in Australia to create a picture of current practise
- Study Design:** An electronic survey

**Sample:** Program coordinators of community based cardiac rehabilitation and CHF rehabilitation programs currently running in Australia

**Survey Design:** 49 questions across 6 categories: program demographics and design (n=15), patient demographics (n=2), exercise program design (n=6), referrals (n=5), program inclusion criteria (n=4), attendance and engagement levels (n=16)

## Results

The survey was completed by 165 program coordinators from 365 potential programs, a response rate of 45.2%.

Most respondents were registered nurses, nurse practionners or physiotherapists. The spread of respondents included all states and territories across Australia.



Generally included programs were following the Heart Foundation guidelines in terms of program design, staff levels and program components, though it differed how these were delivered (Table 1, 2 and 3).

Patient demographics aligned with previously reported literature (Table 1)<sup>2</sup>.

**Table 1.** Components of the rehabilitation program

| Components                      | % of Programs |
|---------------------------------|---------------|
| <b>Exercise</b>                 | 80%           |
| CHF Specific                    | 35%           |
| Within Cardiac Rehab            | 45%           |
| With Pulmonary Rehab            | 9%            |
| <b>Education</b>                | 82%           |
| CHF Specific                    | 51%           |
| Within Cardiac Rehab            | 36%           |
| With Pulmonary Rehab            | 3%            |
| <b>Relaxation</b>               | 26%           |
| <b>Handouts</b>                 | 61%           |
| <b>1:1 Allied Health</b>        | 44%           |
| <b>Home visits ± Telehealth</b> | 7%            |

Referral sources and program capacity levels differed. The majority of respondents agreed that they were not being referred all appropriate CHF patients, most based this on the number of CHF hospital admissions in their region (Fig 4).

**Table 3.** Length of most common program components

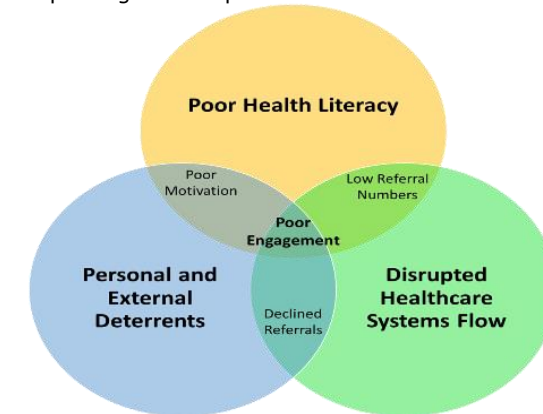
| Phase    | Exercise (mins) | Education (mins) | Session /week | Length (weeks) |
|----------|-----------------|------------------|---------------|----------------|
| I        | 46              | 36               | 2             | 8              |
| II       | 58              | 57               | 2             | 9              |
| III-Gym  | 64              | 49               | 2             | 10             |
| III-Home | 35              | 39               | 2             | 20             |

**Table 2.** Demographics of programs and patients

| Demographics                         | Percentage     |
|--------------------------------------|----------------|
| <b>Geographical Area</b>             |                |
| Metropolitan                         | 37.41%         |
| Regional                             | 46.76%         |
| Remote                               | 8.63%          |
| Mixed                                | 7.19%          |
| <b>Type of Health Provider</b>       |                |
| Public : Private                     | 92.14% : 7.86% |
| <b>Program Location</b>              |                |
| Acute Hospital                       | 28.36%         |
| Outpatient Clinic                    | 24.82%         |
| Community Centre                     | 23.40%         |
| Community Rehabilitation Centre      | 17.02%         |
| Home Based Service                   | 3.54%          |
| Private Clinic                       | 2.12%          |
| <b>Program Type</b>                  |                |
| Phase I                              | 21.21%         |
| Phase II                             | 62.42%         |
| Phase III Gym: Home                  | 40.00% : 3.03% |
| <b>Common Patient Age Groups</b>     |                |
| Under 50 years old                   | 12.51%         |
| 50 - 59 years old                    | 19.79%         |
| 60 - 69 years old                    | 64.58%         |
| 70 - 79 years old                    | 73.97%         |
| 80 years old and over                | 29.16%         |
| <b>Patient Diversity</b>             |                |
| Male participants                    | 60.41%         |
| Culturally & Linguistically Diverse  | 21.94%         |
| Indigenous background                | 6.67%          |
| Immigrant / International background | 21.87%         |
| Travel more than 50kms               | 10.16%         |

The major barriers to engagement were themed into three many areas (Fig 5): poor health literacy (patients, and health professionals), disrupted flow through the healthcare system (missed or late referrals, waitlist times), and personal and external deterrents (current health, weather, motivation, too many appointments, work/family commitments).

Strategies to improve engagement commonly focused on patient education and personal and external deterrents, rather than improving program promotion by medical staff and improving referral processes.



**Figure 5.** Themed barriers to engagement and adherence

## Conclusion

This survey identified barriers to improving engagement and attendance levels in CHF rehabilitation programs. Strategies should focus on addressing poor health literacy including medical and health professionals, improved flow through the healthcare system and improving the flexibility of program delivery.

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