

# Effects of community based palliative care on health care utilization in patients with advanced heart failure



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## Introduction

In 2000, patients with advanced heart failure (HF) accounted for the second highest number of hospital days in Canada.

Advanced HF is responsible for:

- High symptom burden in patients
- Caregiver burden
- Challenges in collaborative care

We propose that providing home-based palliative care (PC) for these patients will meaningfully reduce the number of:

- ED visits
- Heart Function Clinic visits
- Days in hospital

## Methods

Quality Improvement (QI) analysis of health care utilization of a sample of patients with advanced heart failure (HF). Patients had goals of comfort-based care (including parenteral diuresis).

Pre- and post- implementation of home-based palliative care, we measured and compared rates of:

- Heart function clinic visits
- Emergency department visits
- Hospital admissions
- Days in hospital

## Results: Patient health care utilization (N = 32)

Figure. 1

**Days in Hospital**  
M = 12.5 day/month  
R = 0 - 31

**Number of admissions**  
M = 1.5/month  
R = 0 - 15

**Number of Emergency Department Visits**  
M = 1 visit/month  
R = 0 - 9

**Number of HF Clinic Visits**  
M = 0.3 visits/month  
R = 0 - 6

**Number of Palliative Care Visits**  
M = 0  
R = 0 - 1

**Before Home-based PC**

**With Home-based PC**

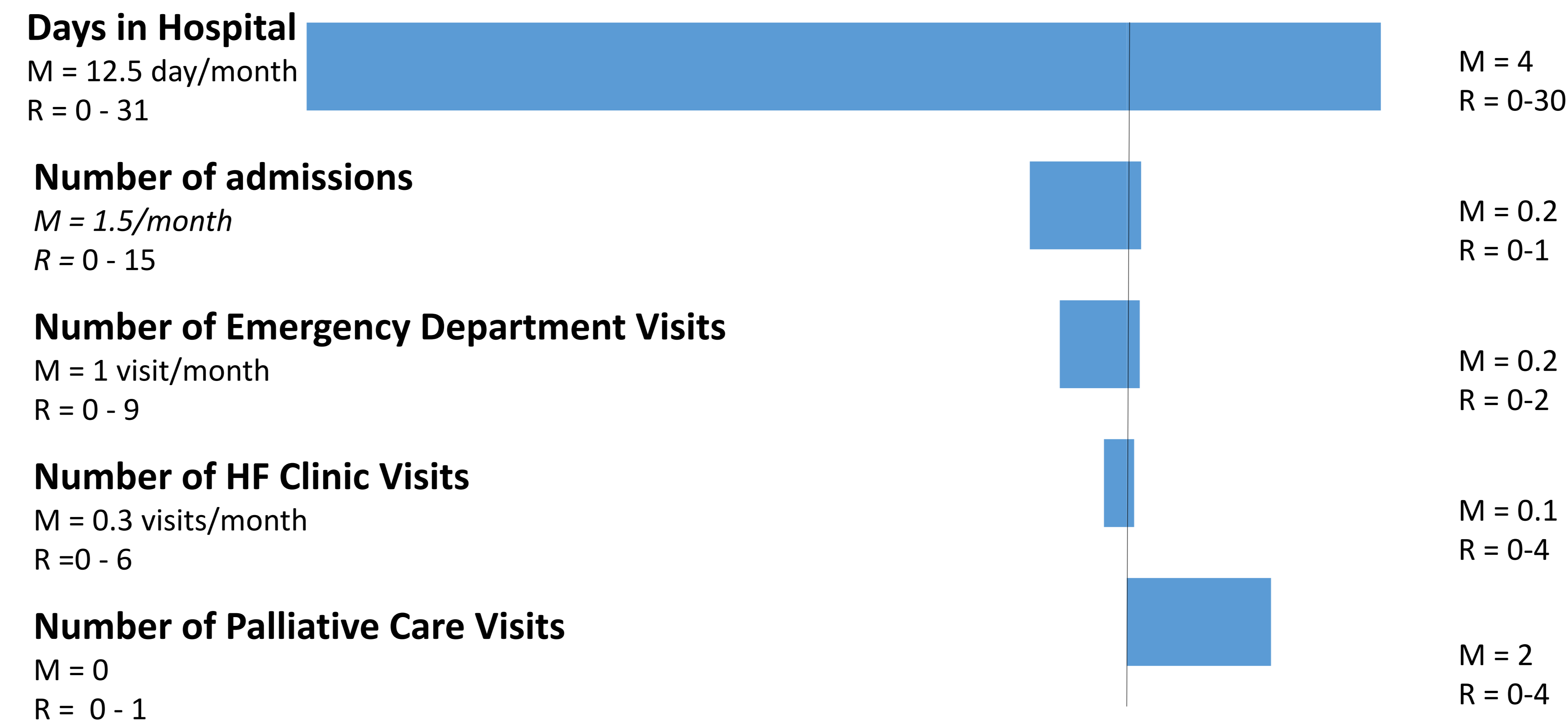


Figure. 2  
**Location of care**

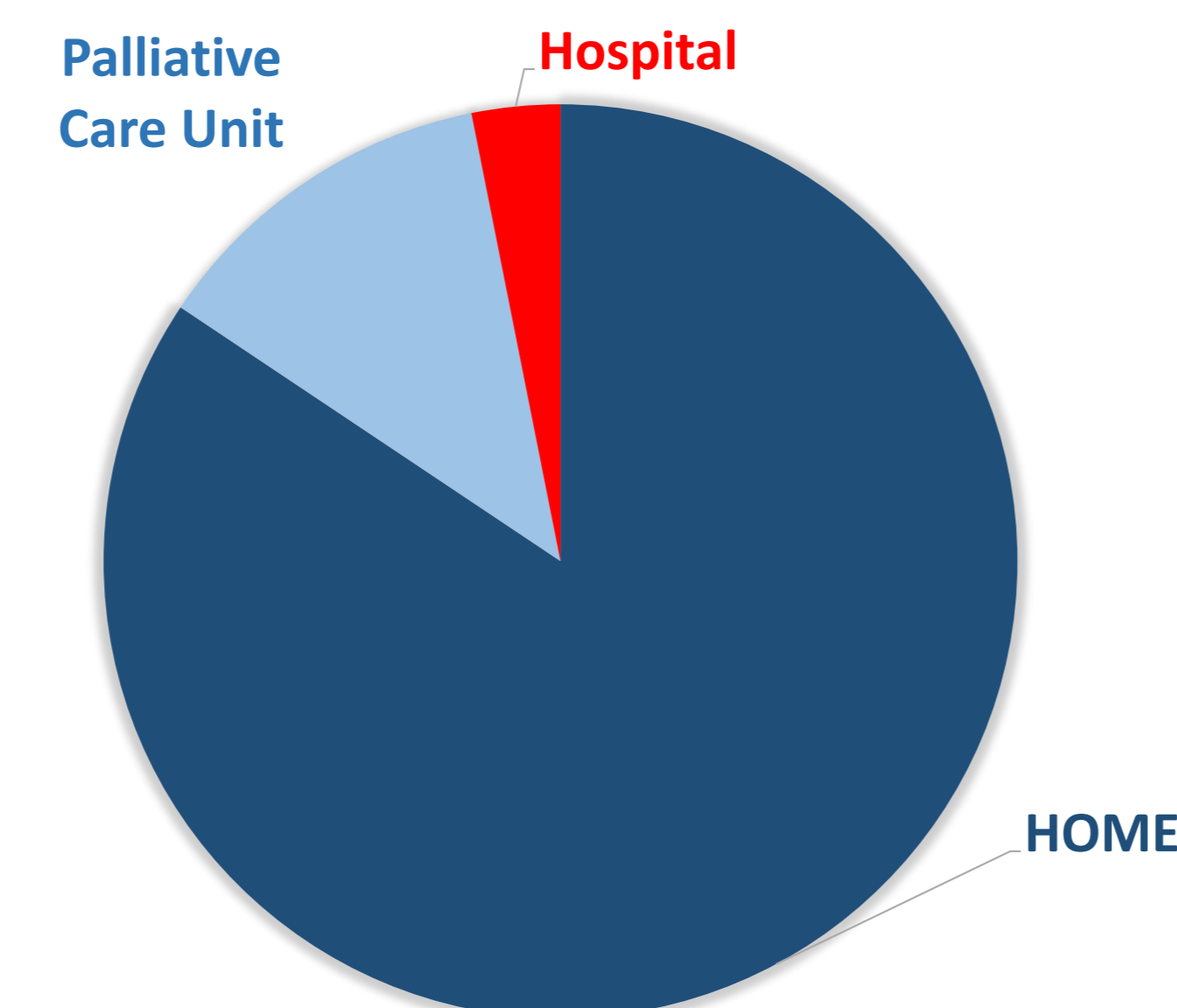
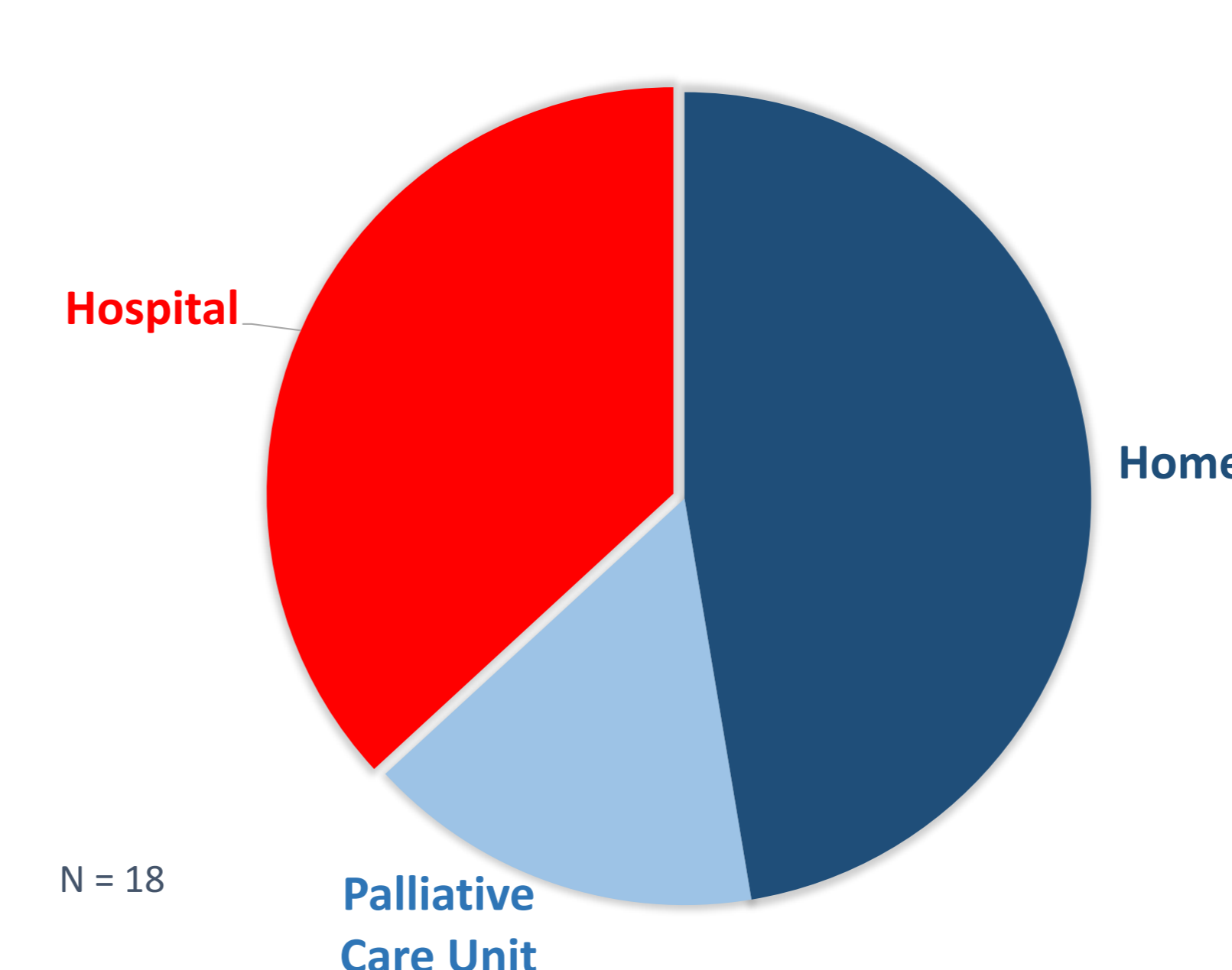


Figure. 3  
**Location of death**



## Results

A total of 32 patients with advanced HF were seen in the home-based program over a 2 year period.

- 69% female
- Mean age = 83.6 years

Median length of stay for patients in the home-based PC program was 2.73 months (range 0.1 – 25.6 months).

Primary Care Physicians remained involved in the care of 16% of patients once in the home-based program. However, involvement varied in both amount and type.

Pre- and post-intervention comparison showed *meaningful* reductions in rates of: (see figure 1)

- Days in hospital (pre: M=12.5 days/month; post: M=4 days/month)
- Hospital admissions (pre: M=1.5 admissions/month; post: M=0.2 visits/month)
- ED visits (pre: M=1 ED visit/month; post: M=0.2 ED visits/month)
- Clinic visits (pre: M=0.3 visits/month; post: M=0.1 visits/month)

## Conclusion

Home-based care of patients with advanced heart failure can lead to decreased health care utilization, including a decreased number of clinic visits, ED visits, and hospitalizations.

In turn, we hope it can reduce both patient and system burden and result in greater health-related quality of life for patients with advanced heart failure.