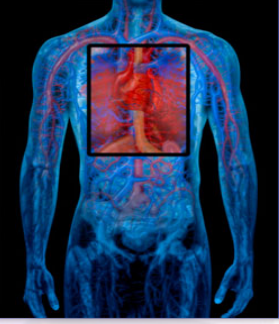


CHF-HOME (Home, community, Monitoring and Exercise) Program: A Multidisciplinary Program to improve the outcome of patients with Congestive Heart Failure

Tse TS¹, Yeung SF¹, Wong R², Wong KW³, Lee YFT¹, Cheung CY¹,
Cheung WK¹, Wong WH³, Ng YNA³, Wong D², Li A⁴, Cho HY¹,
Wong SW¹, Chan KK¹, Li SK¹

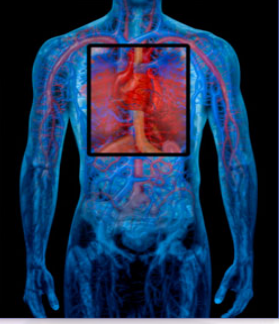
*Department of Medicine*¹, *Community and Patient Resource Centre*², *Department of Physiotherapy*³, *Department of Dietetics*⁴,
Pamela Youde Nethersole Eastern Hospital



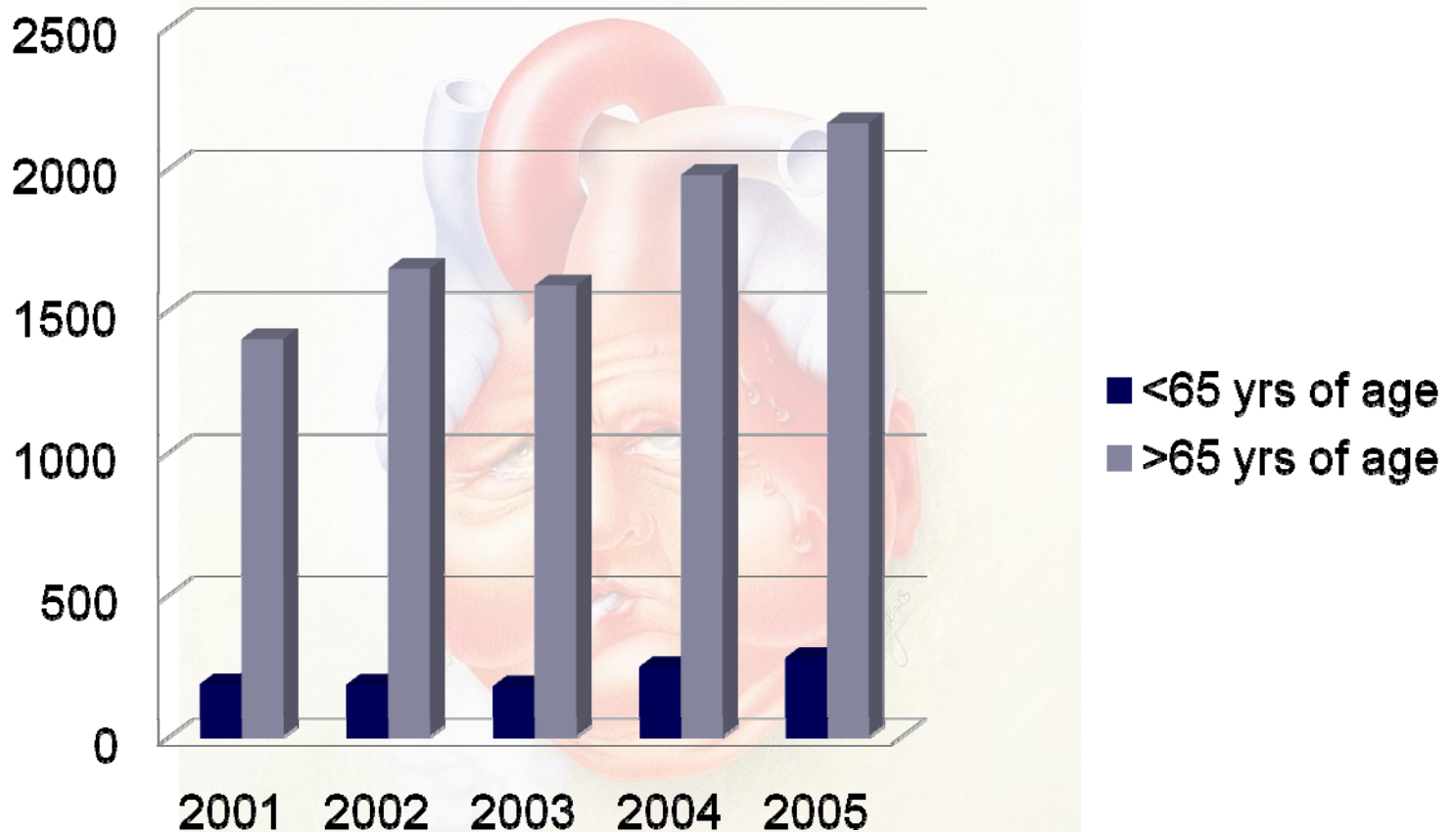
Introduction

- CHF is a growing public health problem in Hong Kong.
- It is one of the leading causes of hospitalization in individuals older than 65 years of age.
- Readmission rate for CHF is very high, with 33% of patients readmitted or died within 60 days.
- And it has been shown that readmissions for heart failure could be prevented up to 50 percent of cas

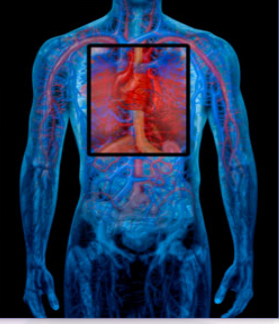




Situation in PYNEH



In 2005, the total numbers of hospitalization for CHF was 2433
And the average length of hospital stay was 6.7 days.

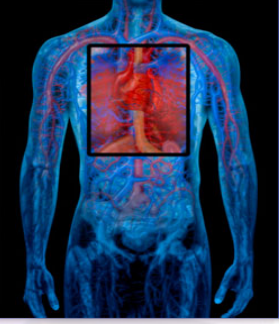


Preventable Causes of Rehospitalization

- Noncompliance with medications or diet,
- Inadequate discharge planning or follow-up
- Failure to recognize early symptom of CHF
- Failure to seek medical attention promptly when symptoms recur.

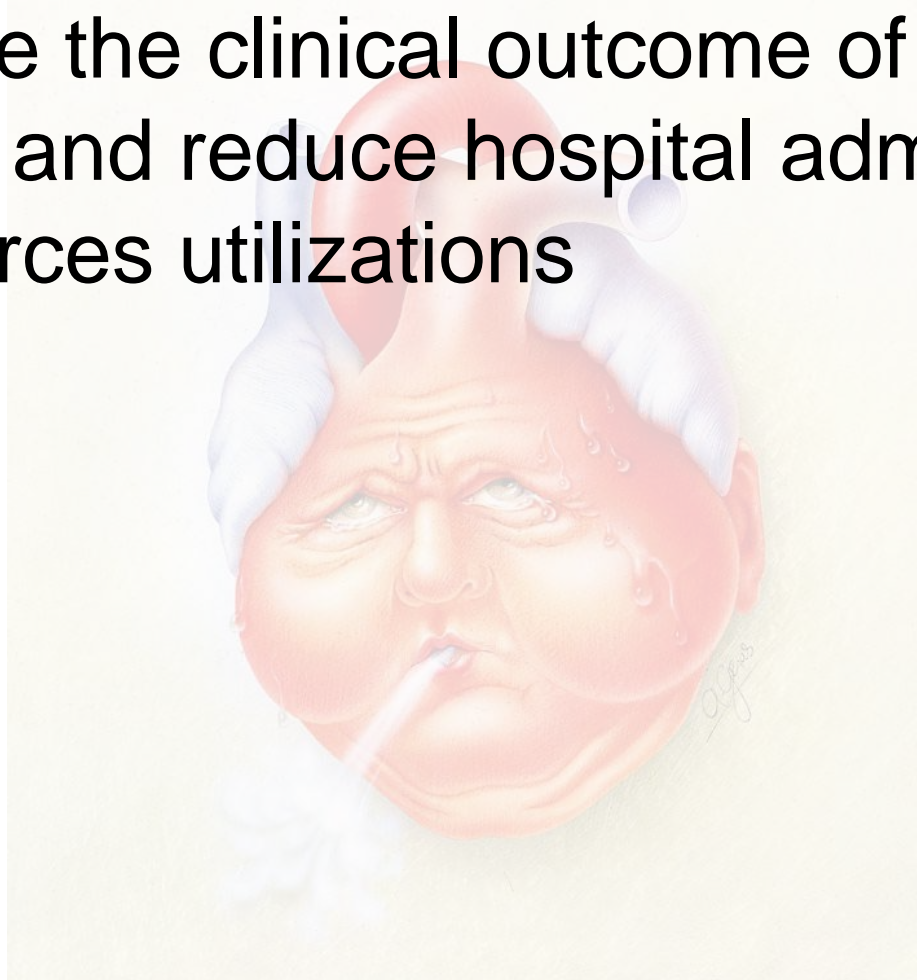
Intervention in early symptom onset can help to prevent the index hospitalization.

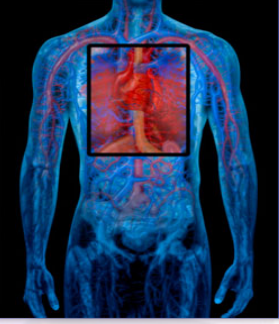




Objective

- To improve the clinical outcome of patients with CHF, and reduce hospital admissions and resources utilizations

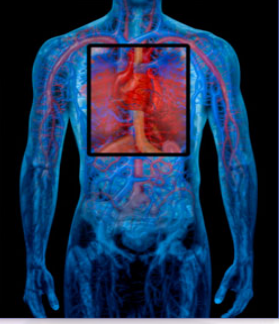




Methodology

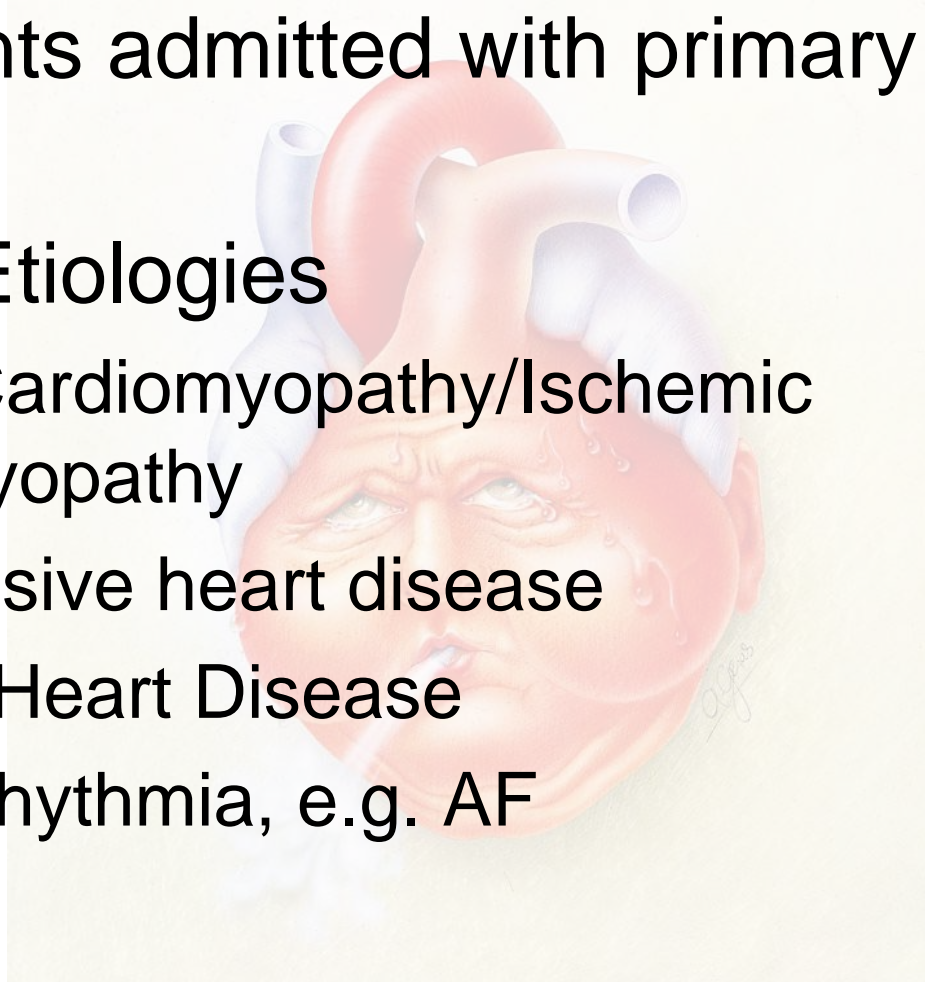
- A multidisciplinary heart failure management team was established in October 2007 to identify, assess, intervene and monitor selected patients admitted with CHF, i.e., in-patient clinical assessment, predischarge education and counseling, post-discharge management plan, telephone follow-up and enquiry service, early clinic follow-up.
- Primary Clinical outcome: 6 months Readmission Rate for Enrolled patients before and after enrolling into program
- Preliminary Clinical outcome: 60 days readmission with CHF, 60 days mortality or readmission with CHF, length of stay (patients enrolled and not enrolled into program)

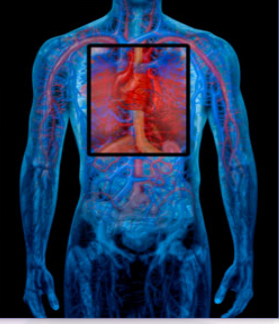




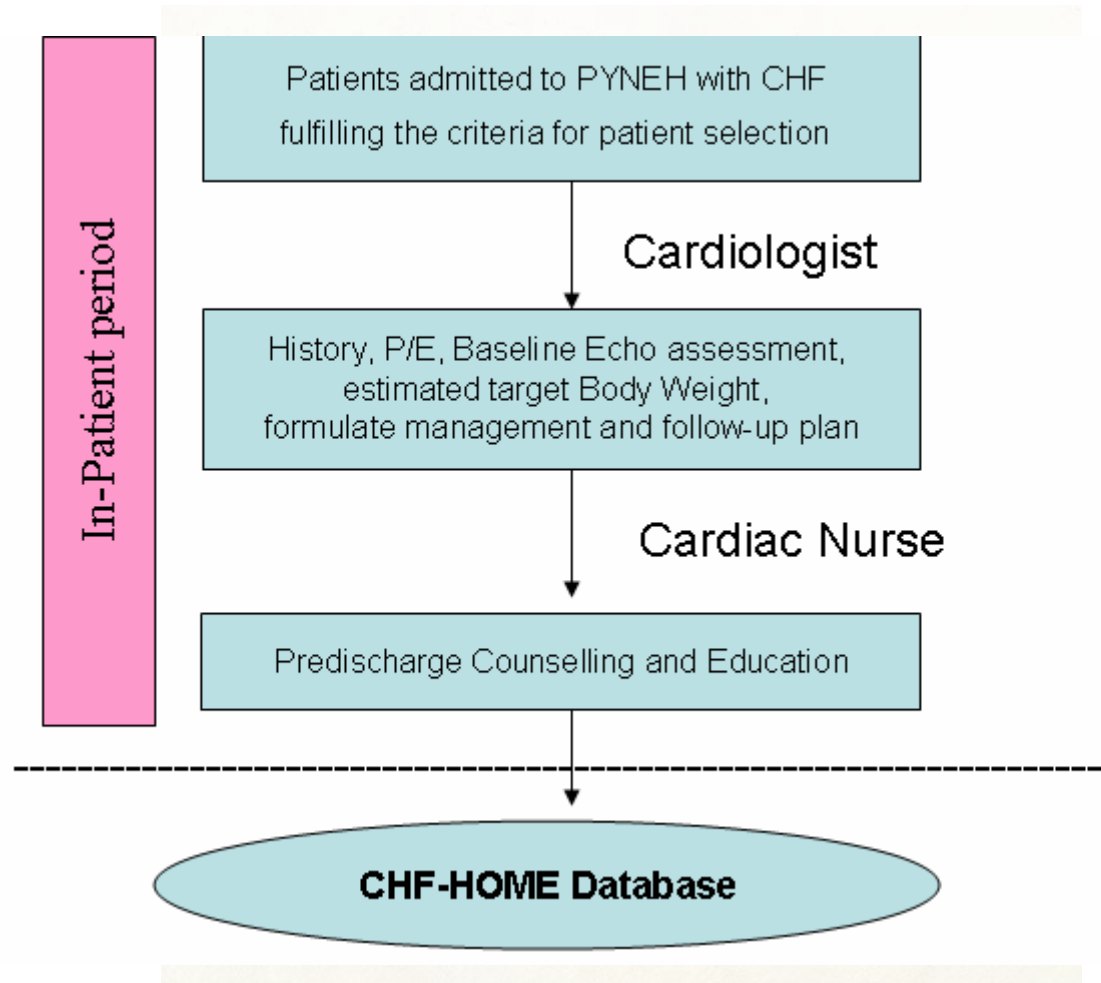
Patients Selection

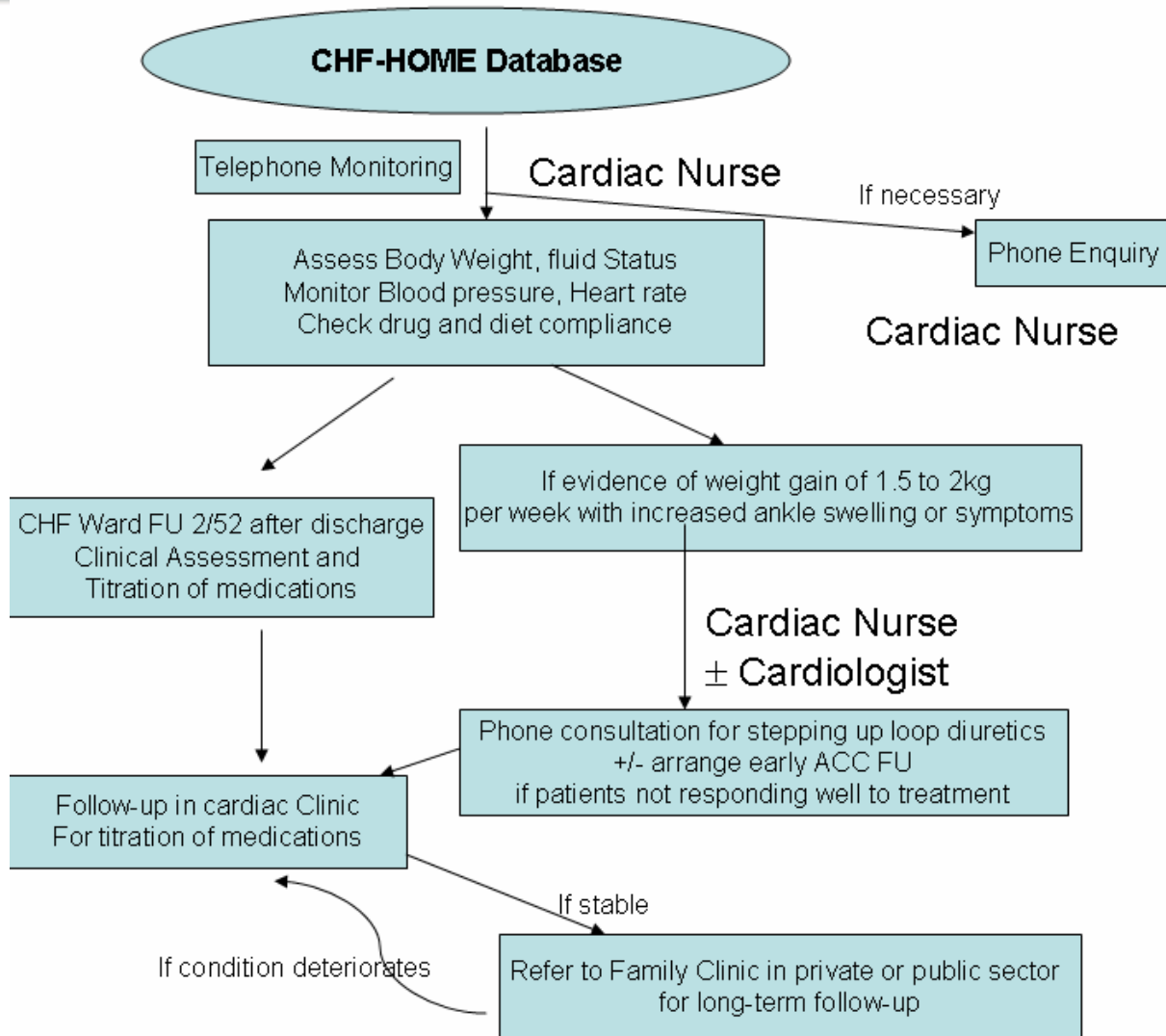
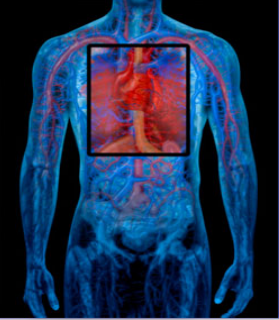
- Any patients admitted with primary diagnosis of CHF
- Possible Etiologies
 - Dilated Cardiomyopathy/Ischemic Cardiomyopathy
 - Hypertensive heart disease
 - Valvular Heart Disease
 - Tachyarrhythmia, e.g. AF

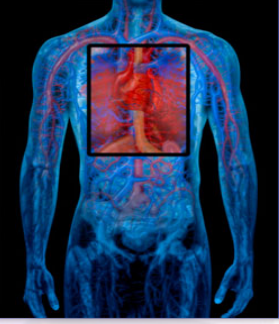




Work-Flow

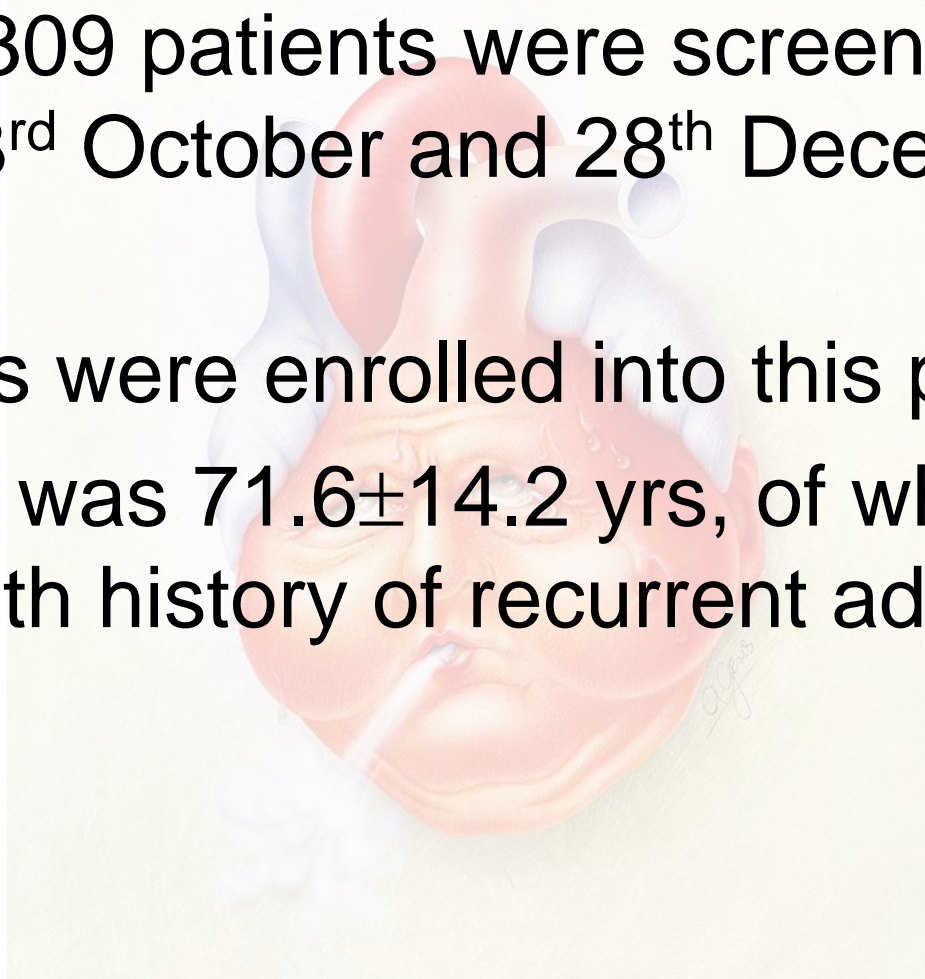


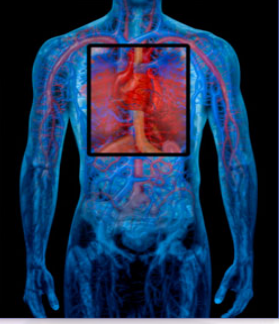




Results

- A total of 309 patients were screened between 3rd October and 28th December 2007.
- 50 patients were enrolled into this program,
- Mean age was 71.6 ± 14.2 yrs, of which 68% of them with history of recurrent admission for CHF

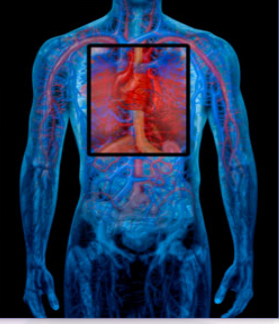




Reasons for Excluding Patients From Program

Reason for Excluding patients from the Program	Numbers of patients	%
Old Aged Home Patients	34	13%
Advanced age (>88 years of age)	28	11%
Underlying Renal Failure	47	18%
Underlying Respiratory Disease	40	15.5%
Poor Insight or Premorbid Status	23	9%
Not able to attend regular FU or phone FU	21	8%
CHF with Reversible Causes	14	5.5%
Significant Comorbid Condition (e.g. underlying malignancy)	34	13%
Unstable Condition	17	7%

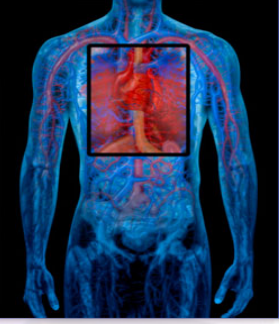




Phone Follow-up and Enquiry Services

- A total of 264 telephone follow-up and 49 telephone enquiry service were provided.
- 35 episodes of early evidence of CHF were recognized, which were settled without hospital admissions.
- Drug and dietary advice, awareness of CHF disease and symptoms, importance of home care and self-assessment were reinforced through these services.

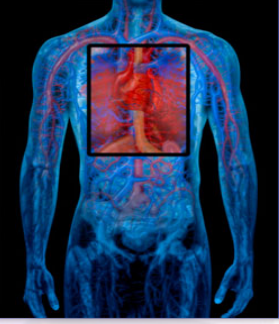




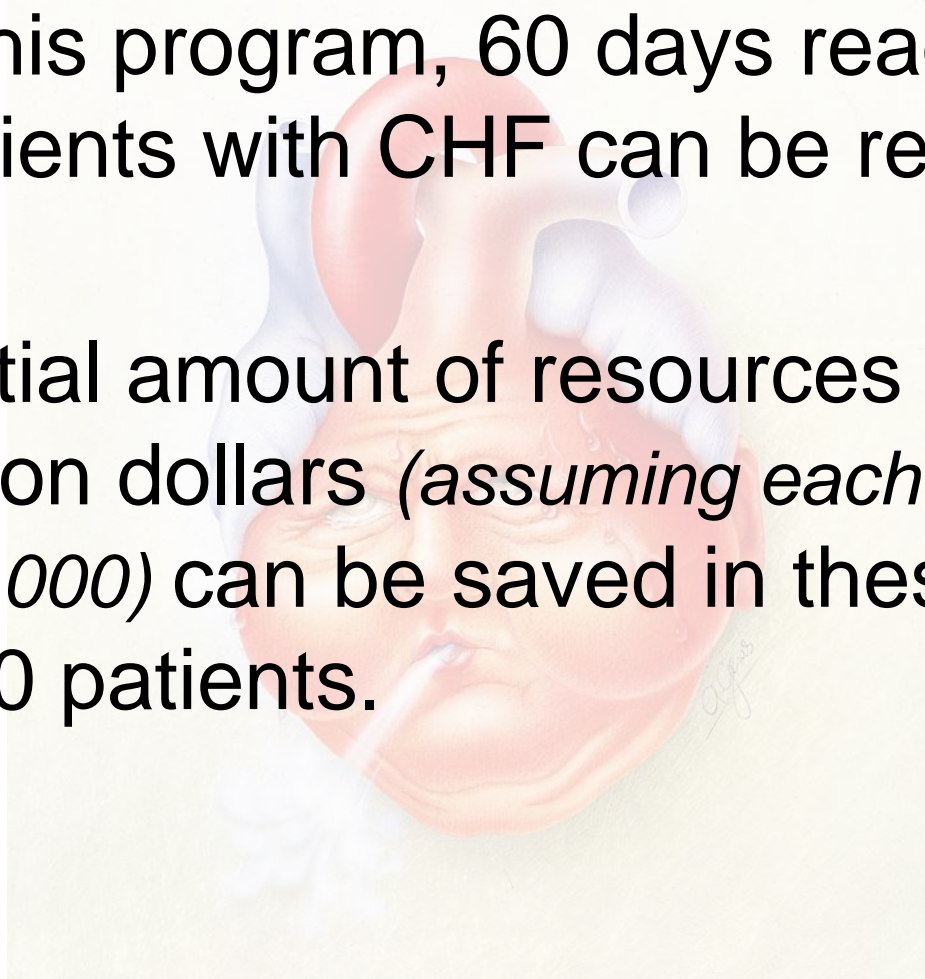
Clinical Outcome

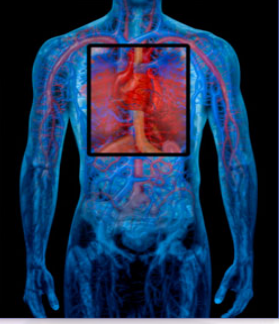
	Patients enrolled in the program
<i>Numbers of patients</i>	50
<i>60 Days readmission with CHF</i>	10%
<i>60 Days mortality or readmission with CHF</i>	10%
<i>Average length of stay for patients readmitted with CHF (days)</i>	2.8





- Through this program, 60 days readmission rate of patients with CHF can be reduced by 60%
- A substantial amount of resources up to 0.155 million dollars (*assuming each admission will cost 21,000*) can be saved in these enrolled 50 patients.



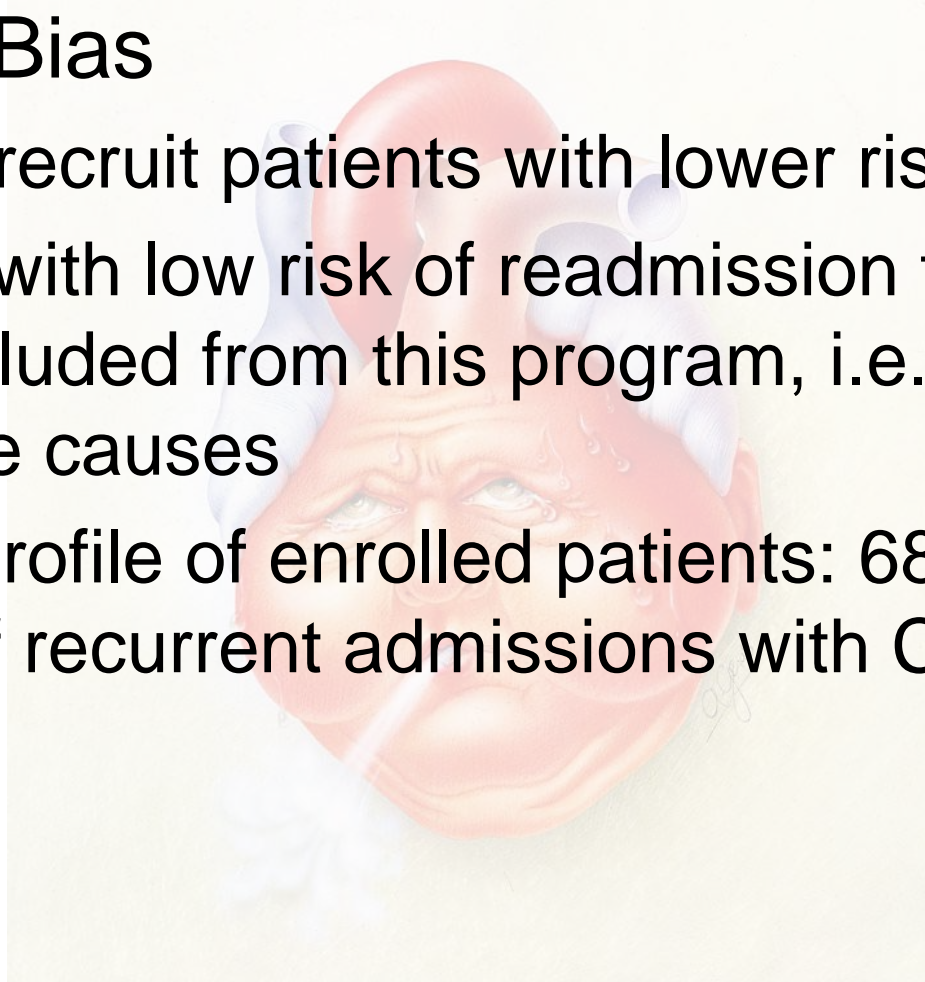


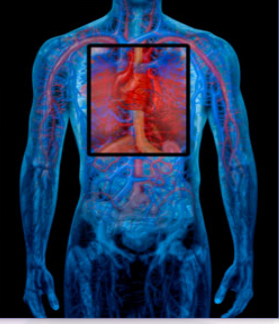
Limitations

■ Selection Bias

?Tends to recruit patients with lower risk?

- Patients with low risk of readmission for CHF were excluded from this program, i.e., CHF with reversible causes
- Clinical profile of enrolled patients: 68% with history of recurrent admissions with CHF

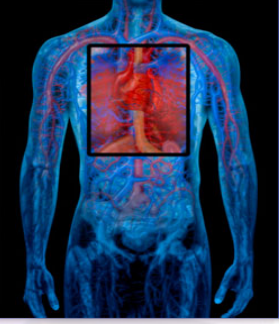




Conclusions

- This preliminary results showed that CHF-HOME Program improves the clinical outcome of patients with CHF, and reduces hospital admissions and resources utilizations.
- 6 months readmission rate of patients enrolled in this program with CHF before and after intervention is pending for better evaluation of effectiveness of this program.
- If more resources are available, higher proportion of patients can be enrolled and more patients can be benefited.

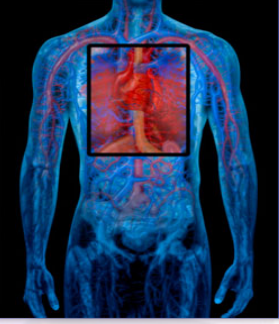




Future Directions

- Partnership Program with TWEH CRRC
 - Refer Patients for outpatient cardiac rehabilitation
 - Collaboration to prevent duplication of resources
- Extended Community Program
 - Extended Telephone Concern by Peer Volunteers from Care For Your Heart (Patients Association)
 - Psychoeducational group, with consecutive sessions for both patients and carers (Multidisciplinary Heart Failure Team, Patients Association)





Thank you

