

Heart Failure: *Factsheet*

Tower Hamlets Joint Strategic Needs Assessment 2010-2011

Executive Summary

This factsheet describes Heart Failure, a complex clinical syndrome that occurs when the ability of the heart to act as a pump is impaired. It is an important condition as it is a consequence of cardiovascular heart disease (CHD), the prevalence of which is increasing rapidly in the UK despite the declining overall mortality from CHD. The incidence of Heart Failure can be reduced by modifying simple life-style risk factors but once diagnosed is a progressive condition causing a range of disabilities which affect a person's ability to work and function in society.

In 2009 there were 1103 recorded cases of heart failure in Tower Hamlets. This equates to an age-standardised prevalence of 0.7% of the population. The local trend has been for a reduction in cases of heart failure in the last five years. Emergency admissions have also reduced over this time but readmission rates have not seen the same reduction.

The National Service Framework for Coronary Heart Disease and NICE set out guidance on the prevention and management of Heart Failure. The NICE guidance was published in 2010 and as such formed the basis of a self-assessment against which priorities for action have been formed.

Recommendations

- Formal discharge criteria to be used by secondary care to ensure adequate referral to community heart failure teams to ensure optimal use of this service
- 50% of those eligible patients to receive cardiac rehabilitation.
- Complete an audit to evaluate referral to echo rates as per NICE guidance.
- Increase the level of licensed β -blocker prescription to heart failure patients in the borough.
- Agreement on an appropriate referral pathway policy from echo testing to OPD for cardiology assessment.
- An agreed management strategy for end of life care.
- Patients to be provided with an alert card with nominated specialist heart failure team member contact details.
- To conduct an annual patient and carer service survey.
- Public Health standards designed by the networks need defining to ensure accurate measurement and evaluation.

1. What is Heart Failure?

This factsheet describes Heart Failure, a complex clinical syndrome based around the premise that the ability of the heart to act as a pump is impaired. It is an important condition as it is a consequence of coronary heart disease (CHD), the prevalence of which is increasing rapidly in the UK despite the declining overall mortality from CHD. The incidence of Heart Failure can be reduced by modifying simple life-style risk factors but once diagnosed is a progressive condition causing a range of disabilities which affect a person's ability to work and function in society.

Patient experience

- There are approximately 900,000 people diagnosed with Heart Failure in England and the incidence is 1/1000 population per year, a figure that is increasing by 10% each year.
- Heart failure often has a poor prognosis, with survival rates worse than for breast and prostate cancer. 30 – 40% patients diagnosed with heart failure die within 1 year.
- There are ~6,000 deaths a year due to heart failure and the annual mortality for those with heart failure ranges from 10% to over 50% depending on severity.
- Patients commonly present with a myriad of clinical signs including breathlessness and psychosocial function is often impaired with over a third experiencing severe and prolonged depressive illness.
- The financial burden is experienced through prescription charges, modifications to the home and loss of earnings.
- The average age of diagnosis is 76 and the incidence of heart failure increases to 10/1000 population in those 85 and over.

Risk Factors & Prevention

- Most commonly, heart failure is caused by coronary artery disease. A third of patients have heart failure secondary to chronic hypertensive disease and a small proportion of cases can be attributed to dilated cardiomyopathy or atrial fibrillation.
- Risk factors for coronary heart disease therefore apply to heart failure i.e. smoking, diabetes and obesity.
- Prevention methods include life-style changes as applicable to general cardiovascular health and optimal medical management post myocardial infarction.

Impact on the NHS

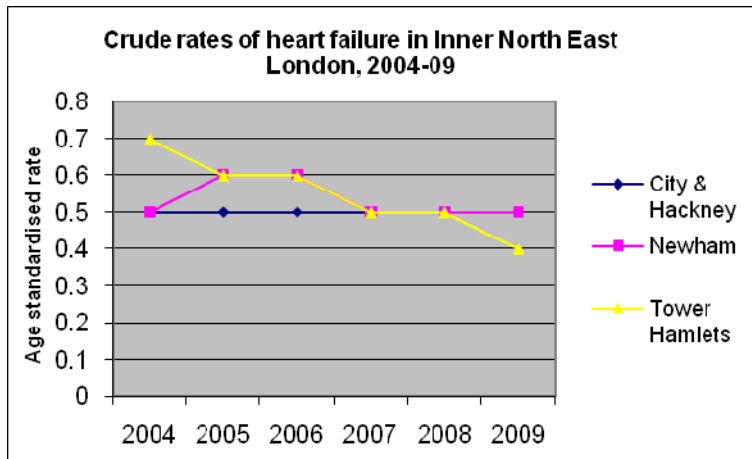
- Heart failure accounts for approximately 5% of all medical admissions and about 1 in 4 patients are readmitted in three months
- Heart failure accounts for a total of 1 million inpatient bed days – 2% of all NHS inpatient bed-days – and 5% of all emergency medical admissions to hospital.
- It is estimated that the total annual cost of heart failure to the NHS is around 2% of the total NHS budget: approximately 70% of this total is due to the costs of hospitalization

2. What is the local picture?

Prevalence / Incidence

In 2009, there were 1103 recorded cases in Tower Hamlets, at a crude rate of 0.4% or an age-standardised rate of 0.7%, which is the same as the 2008 national age-standardised prevalence but better than neighbouring boroughs (Fig 1).

Figure 1; Age-standardized rates of heart failure in Inner North East London, 2004-09 (Source: General Practice Chronic Disease Management 2004-2009, CEG)



Prognosis (survival/mortality)

The numbers of deaths due to heart failure within the borough range from 12 to 24 per year. Figures are too small from which to draw any significant conclusions.

Admissions

Whilst secondary care admissions for heart failure (1480 in 2010) have remained roughly constant over the last three years, the cost of these admissions has steadily reduced (Fig 2). Whilst we cannot confirm the reasons for this, suggested explanations include a reduced length of stay/faster discharge to the community.

Figure 2; Secondary care admission and spend for heart failure and related HRGs, 2007/08- 2009/10. (Source: SUS)

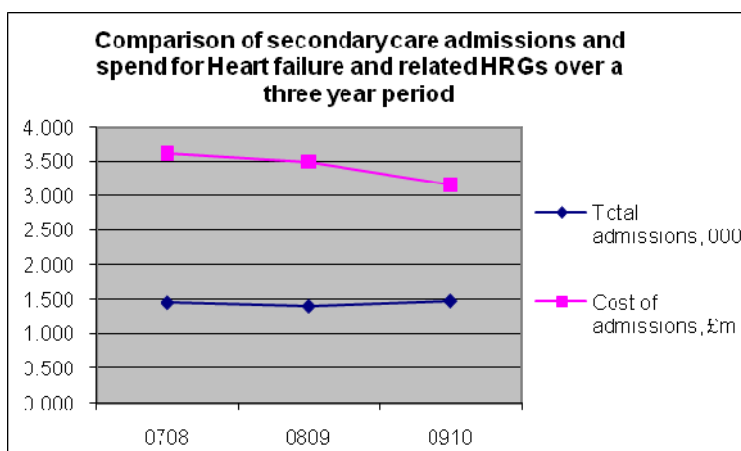
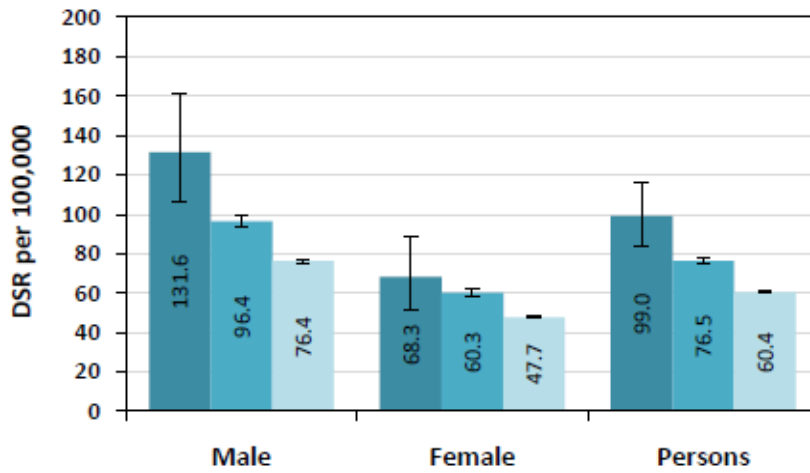


Figure 3; Heart failure emergency admission rates (DSRs) in Tower Hamlets, for all ages, 2009/10¹



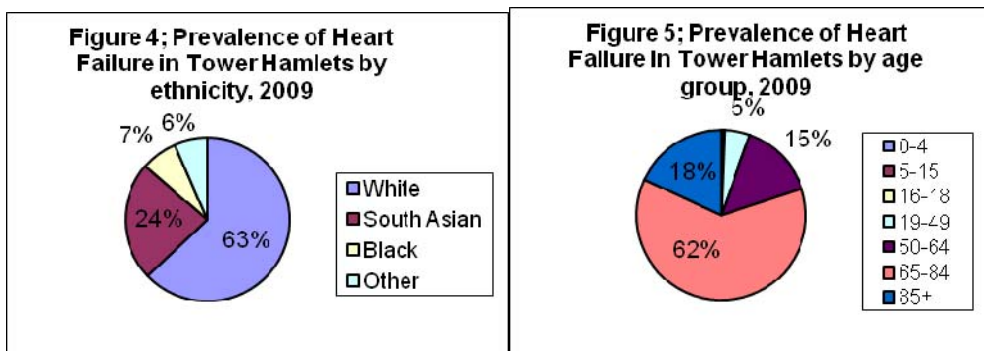
Source: HES, The NHS Information Centre for health and social care, ONS

In 2009/10 the emergency admission rate for heart failure, all persons, in Tower Hamlets was 99 per 100,000 (158 admissions). This is significantly higher than England (60.4 per 100,000) and significantly higher than London (76.5 per 100,000).² Males have a significantly higher emergency admissions rate than females. They account for 54% of the heart failure population so this finding cannot be attributed to the composition of the underlying population.

Inequalities

- The ethnic distribution of heart failure within Tower Hamlets, (Fig 4) is reflective of the make-up of the older population.
- Prevalence is greatest among the 65-84, (Fig 5) as predicted by the natural course of this condition.

Figures 4 & 5; Prevalence of heart failure in Tower Hamlets by ethnicity and age, 2009 (Source: CEG)



¹SEPHO, Cardiovascular disease PCT profile, 2011

²SEPHO, Cardiovascular disease PCT profile, 2011

3. What are the effective interventions?

[The National Service Framework for Coronary Heart Disease](#) includes a chapter and guidance for Heart Failure and NICE guidance [CG108](#), published in August 2010, includes over 90 recommendations for diagnosis and management. The recent edition of the guidance may account for some recommendations remaining a priority for Tower Hamlets at the time of writing this factsheet.

The aims of heart failure treatment include improving quality of life by:

- improving symptoms or slowing their deterioration
- reducing mortality
- reducing the frequency of cardiac events and admissions to hospital
- avoiding adverse effects from treatment
- improving the end-of-life experience for both patients and carers

Prevention

Patients should be strongly advised on the following lifestyle measures;

Stopping smoking & abstaining from alcohol with support services being offered.

- The need for annual influenza and pneumococcal vaccination.
- Practical nutritional/dietary and physical activity advice and service provision.
- Careful monitoring and treatment of co-morbidities including hypertension (i.e. blood pressure) and diabetes (i.e. blood sugar monitoring and HbA1c values).

Primary Care

Investigations should include;

- Biochemical measurement of serum natriuretic peptides which offer prognostic value.
- Trans-thoracic Doppler 2D echocardiography (according to NICE guidance).
- Depression should be considered as a co-morbidity for all heart failure patients and be managed effectively.
- Medication regimes should be kept as simple as possible and the patient fully educated regarding side-effects and interactions.
- Medications should be titrated according to clinical need.
- All patients with chronic heart failure require monitoring. This should include assessment of functional capacity as well as clinical measures and regular medication reviews.

Secondary Care

- After admission a management plan should be formulated by a specialist in heart failure.
- Referral to the specialist multidisciplinary heart failure team should occur for severe cases or those refractory to base-line treatment.
- Protocols used in hospitals should be *hospital-wide*, should be used by all clinical teams that provide care to patients with (or suspected of having) heart failure and should be consistent with current national guidelines.

4. What is being done locally to address this issue?

Prevention

Complementary factsheets are available on the topics of smoking cessation, obesity, physical activity and alcohol.

Primary Care

- Primary care services are in-line with QOF priorities, focusing on appropriate prescribing regimens

Community Services

Community Heart Failure Team

- Consists of 4 Specialist Nurses, a bilingual support worker and a team secretary.
- Roles include medication reviews, lifestyle and self management advice along with liaison with the Heart Failure Specialist Services at Bart's and The London NHS Trust.
- The team also refers patients for cardiac rehabilitation either at Bart's and The London Trust or at Action East, (where pulmonary rehabilitation is also available).
- Patients are assigned a member of the HF specialist team who remains a key contact.
- Patients are contacted by the heart failure team within 72 hrs of discharge from secondary care where possible.

Secondary Care

- Regular MDT meetings with continuing education programs available for secondary heart failure teams.
- Regular audit meetings attended by heart failure and palliative care teams.

5. What evidence is there that we are making a difference?

Primary Care

- There has been steady decline in heart failure prevalence since 2004 although it is known that the condition is under-diagnosed within the borough.
- 96.4% of heart failure patients have their diagnosis of heart failure confirmed by an echocardiogram. Tower Hamlets ranks 66th in the country for this, and compares to a London-wide performance of 96.1% and national performance of 95.9%
- 92.6% of patients with heart failure due to LVD are currently treated with an ACE inhibitor or Angiotensin Receptor Blocker. Tower Hamlets ranks 16th in the country for this and compares to a London average of 91.8% and a national average of 90.0%
- 80.6% of patients with heart failure due to LVD who are currently treated with an ACE inhibitor or Angiotensin Receptor Blocker, additionally treated with a heart failure licensed beta blocker. Tower Hamlets ranks 111th in the country for this and compares to a London average of 84.0% and a national average of 82.4%. NICE guidelines suggest the target is 95%.

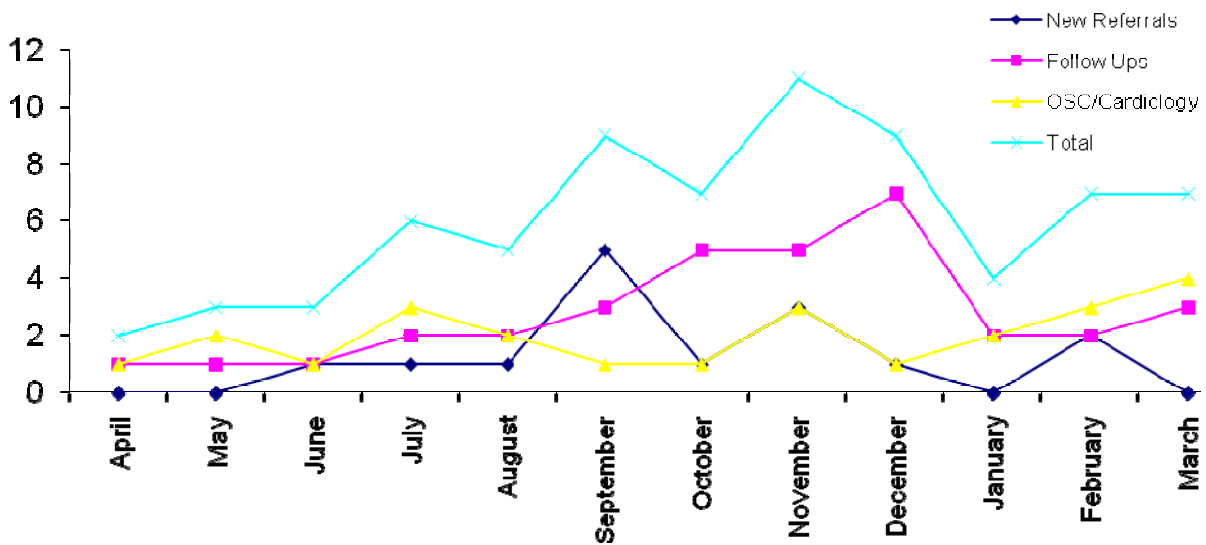
BLT Outpatients: One-stop Heart Failure Clinic and Cardiology Follow-up

- Primary care should perform preliminary investigations where possible and refer newly confirmed HF, cases with a high degree of suspicion or cases that are diagnostically difficult to the One-stop HF clinic.
- There was almost a two-fold increase in the number of One-stop clinics booked from 2009/10 (46) to 2010/11 (88).
- Cardiologist-led follow-ups in 2009/10 were on average 17 per month. In 2010/11 this increased on average to 22 per month.
- Nurse-led follow-ups in 2009/10 were on average 83 per month. In 2010/11 this increased on average to 87 per month.

Community Services

- The Community Heart Failure Team reports that each of the locality nurse team have approximately 50 patients on their caseload. This equates to 20% of the total number of heart patients in the borough.
- The North East London Cardiac and Stroke Network recently led a self-assessment process for heart failure services across North East London. This found that Community Services were an under-utilised resource for this group of patients.
- In 2010/11 73 patients were discharged to the Community Heart Services. The average number of patients referred to CHS increased from 3 per month in Q1 to 6-7 patient referrals per month for the rest of the year.

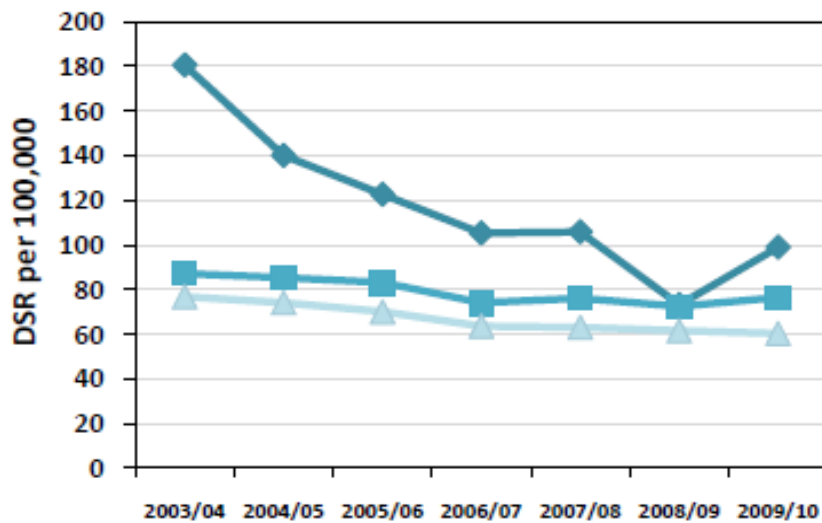
Figure 6: Number of Patients discharged to Tower Hamlets Community Nurses in 2010/11 (Source: CQUIN)



Secondary Care

- In 2010 the total number of admissions for heart failure has reduced by more than half.
- The cost of admissions to secondary care has decreased between 07/08 and 09/10.

Figure 6; Trend in heart failure emergency admission rates (DSRs) in Tower Hamlets, 203/04 to 2009/10³



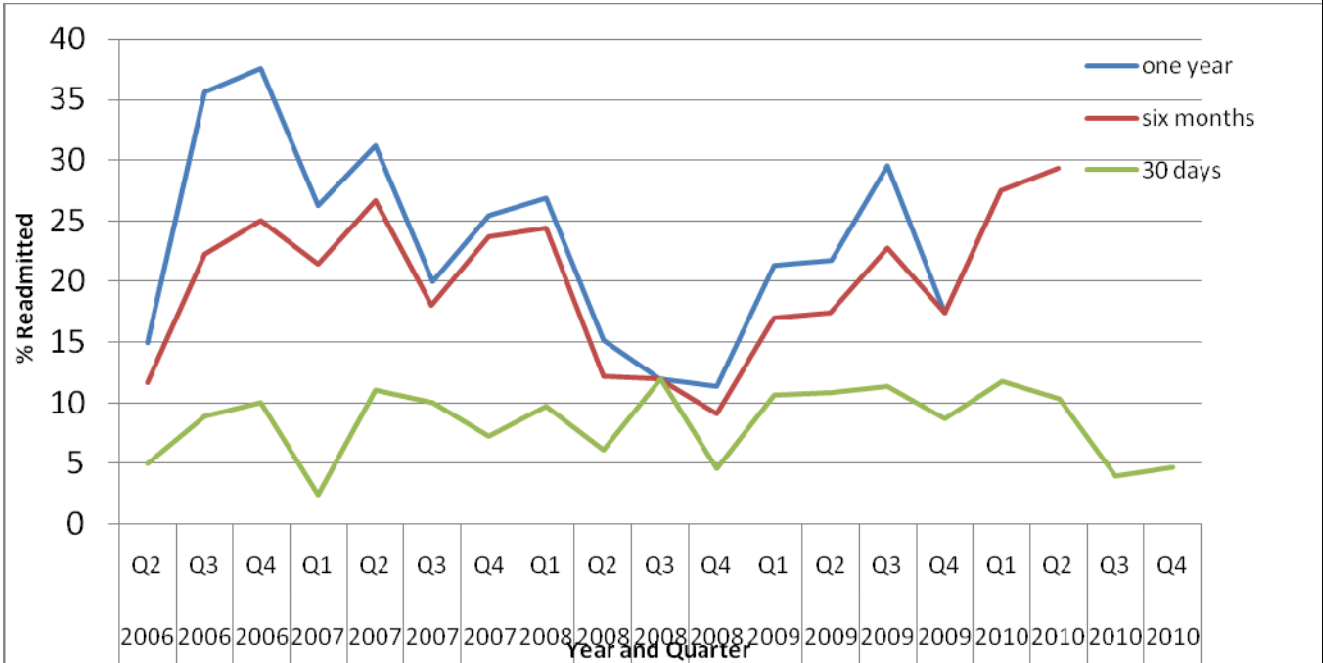
Source: HES, The NHS Information Centre for health and social care, ONS

Legend: Tower Hamlets (dark teal diamond), London (medium teal square), England (light teal triangle)

- The emergency admission rate for heart failure in Tower Hamlets has decreased by 45.2% between 2003/04 and 2009/10. This may be due to improved care planning for heart failure patients, or changes in the case-mix.
- In Tower Hamlets (2006-2010) there has been a steady average of approximately 50 admissions/discharges per quarter for patients with primary HF diagnosis (180-200 per year).

³SEPHO, Cardiovascular disease PCT profile, 2011

Figure 7: Proportion of heart failure patients admitted to hospital who are re-admitted at 1 year, 6 months and 30 days in Tower Hamlets with primary HF diagnosis, 2006-10 (Source: SUS)



- Readmission rates have remained stable over the last four years, and if anything 6-month readmissions have increased. There is also a surprising fall in re-admissions in 2008. (figure 7). This illustrates that the community heart failure team could be put to more effect use at reducing this readmission rate. It is also of note that emergency admissions have reduced during this time frame.
- Average heart failure readmission rates (2010/11) for BLT NHS trust at 14 days is 3.44% (target: 2.80%) and within 15-28 days is 1.70% (target: 1.77%). Current targets were set from low baselines from 2009-2010.
- Approximately two-thirds of patients in Tower Hamlets (2006-2010) with a primary diagnosis of HF are admitted once a year, but there is a significant minority of patients that are readmitted 3,4 or even 5 times a year (figure 8).
- The average length of stay for Tower Hamlets patients with primary HF diagnosis was 11 days in 2009-2010. Hospital length of stay for HF patients has been in line with the national average over the last 4 years showing a gradual decrease. (see figure 9)

Figure 8: Yearly primary admission for HF, segmented by individual frequency of admissions 2006-2010 (Source: SUS)

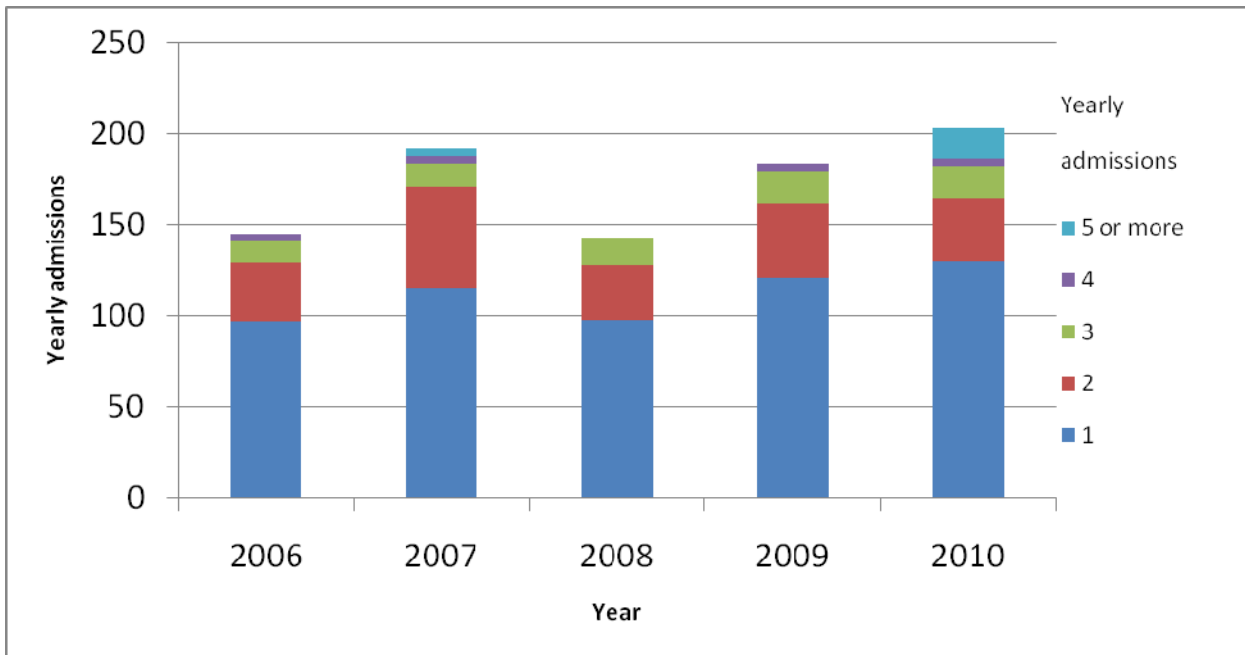
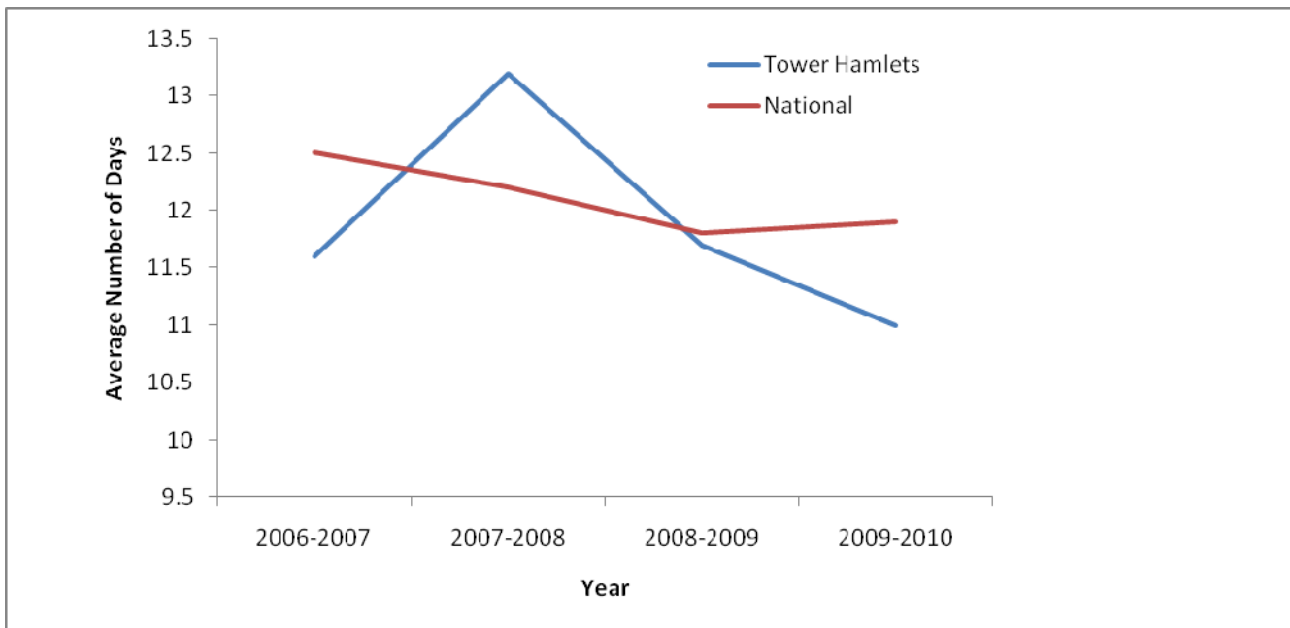


Figure 9: Hospital length of stay for heart failure patients in Tower Hamlets and Nationwide (Source: HES)



- The North East London Cardiac and Stroke Network has endorsed the heart failure pathway in Tower Hamlets following the self assessment process.

6. What is the perspective of the public on support available to them?

At present there is no collated patient perspective information available for inclusion in this factsheet. However, Bart's and the London NHS Trust is collecting data via the standard BLT e-Feedback forms available in all hospitals. In addition, the Community Heart Failure Team is carrying out informal telephone based feedback sessions with both patients and carers. As a priority mentioned below, this data needs to be collated and presented.

7. What more do we need to know?

- Detailed qualitative data regarding patient and carer satisfaction levels, ensuring that all levels of care are targeted without observer bias.
- More detail is needed regarding methods for monitoring common co-morbidities in accordance with NICE guidance.
- Improved data quality regarding deaths attributed to heart failure is needed before conclusions regarding mortality can reliably be made.
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8. What are the priorities for improvement over the next 5 years?

The North East London Cardiac and Stroke Network self assessment process against heart failure standards and the new NICE guidance identified the following areas for improvement:

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- Formal discharge criteria to be used by secondary care to ensure adequate referral to community heart failure teams to ensure optimal use of this service
- 50% of those eligible patients to receive cardiac rehabilitation.
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9. Key Contacts

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Date signed off by Senior JSNA Leads:	<i>Date factsheet signed off by senior JSNA leads from Public Health and LBTH</i>	Signed off by (Public Health Lead):	<i>e.g. Director or Associate Director</i>	Date signed off by Strategic Group:	<i>Date factsheet signed off by Strategic Group</i>	Sign off by Strategic Group:	<i>Name the relevant Strategic Group</i>
		Signed off by (LBTH Lead):	<i>e.g. Director of Adults/CFS</i>				