

Programme 1: Infectious Diseases

This is work in progress, your views and input are welcomed.

What are the big health issues for North Yorkshire and the City of York in this programme?

This programme covers the bulk of infectious and parasitic diseases with the exception of respiratory tuberculosis (covered in programme 11: respiratory problems), meningitis (covered in programme 7: neurological problems) and sexually transmitted infections (covered in programme 17: genitourinary problems). The treatment of hospital-acquired infection can appear as a cost in programme 20 – poisoning and adverse effects of treatment, but the cost of prevention appears here. Childhood and adult immunisation, blood-borne viruses like HIV and Hepatitis B & C, and planning for pandemic flu are included here.

Programme purpose:

To reduce the avoidable burden of infectious diseases in North Yorkshire and the City of York by a combination of prevention, early detection (including screening), rapid access to treatment, enhanced quality and length of life, and a well-managed terminal phase at a place of the patient's choosing wherever possible.

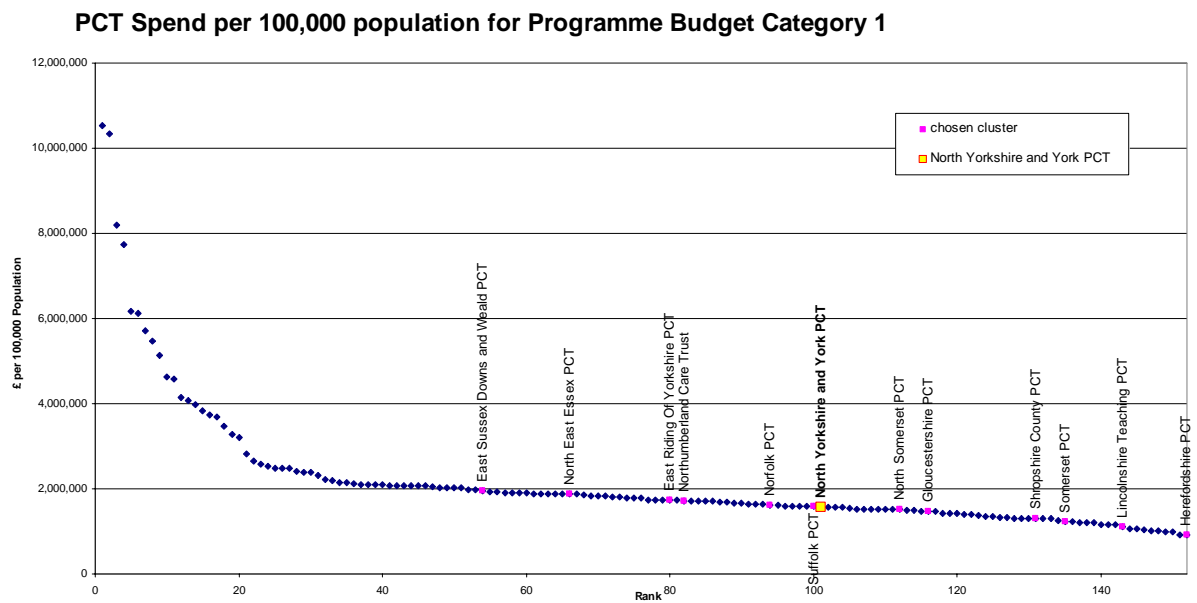
- Achieving and maintaining uniformly high levels of vaccine protection in children and adults
- Preventing and controlling healthcare associated infections such as MRSA (methicillin-resistant *Staphylococcus aureus*) and *Clostridium difficile*.
- Maintaining a satisfactory infection control function in the community, prison, and general medical and dental practice, especially as out-of-hospital care is extended
- Preventing and treating infections with blood-borne viruses particularly Hepatitis B and C and HIV
- Continuing the work on appropriate antibiotic prescribing in general practice
- Planning for the possibility of a flu pandemic.

What was the NYYPCT estimated programme budget for infectious diseases in 2006/07, as spend per 100,000 unified weighted population, and how did that compare with our peers and with the English average?

NYYPCT	£1,577,000
Cluster average	£1,480,000
Yorkshire and the Humber SHA average	£1,586,000
England average	£2,060,000

The expenditure in this programme appears on track – close to the cluster and SHA average. The England average is expected to be higher because of HIV-related disease in metropolitan areas. The first call for investment in new initiatives would need to come primarily from redeployment of resources within the programme.

The chart below shows how the spend in NYYPCT compared with every other PCT in England and highlights those PCTs in the same cluster.



How did that programme budget break down between our providers (total sums)?

NHS Hospital Trusts	£6,475,000
YHFT	£2,176,000
HDFT	£1,080,000
STHT	£2,237,000
SNEYT	£177,000
General Practitioner medicines prescribing	£3,084,000
PCT provider services	£639,000
Non NHS Providers	£11,000
Other NHS providers	£249,000
Other	£320,000

Note the importance of expenditure within general practice – chiefly vaccination and antibiotics, and the relatively high cost of infections in hospital. Simple hygiene precautions can go a very long way to preventing expensive and dangerous complications in this programme.

How did that estimate break down into sub-programmes, and what was the NYYPCT ranking against the other 152 PCTs in England?

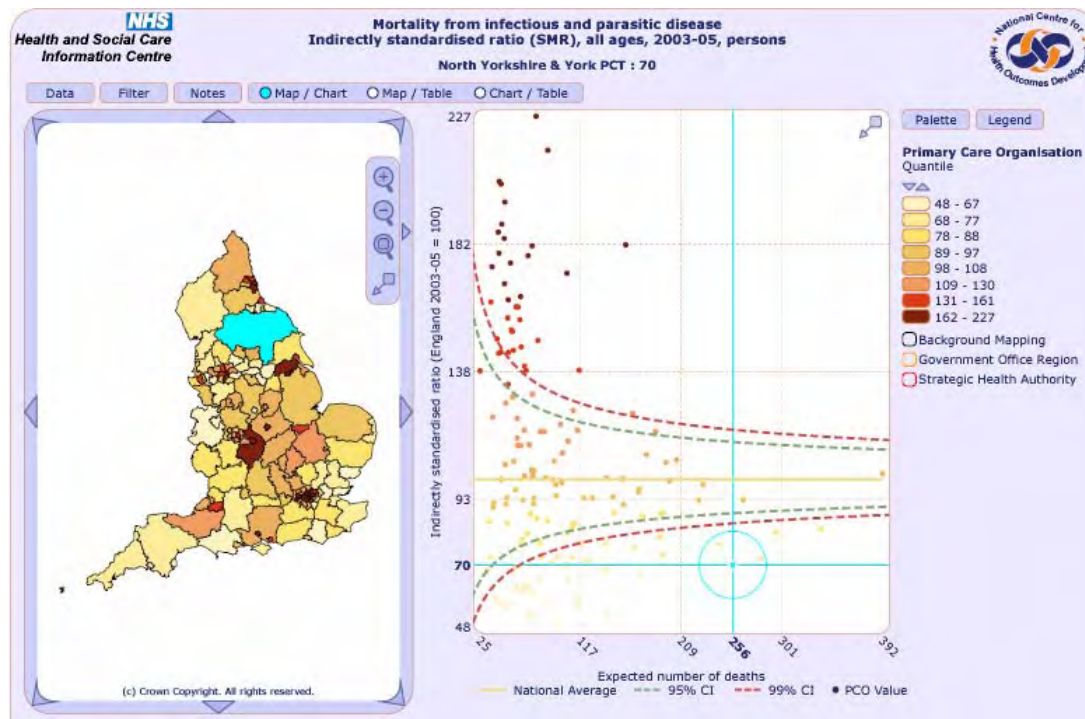
(Source: new data return to DH, 2006/07)

	£ per 100,000 weighted population	Rank out of 152 PCTs (1 is highest)
Total Infectious diseases	1,588,746	98
HIV	214,616	97
Other	1,374,129	53

Note that HIV disease is already a significant element of the total. If other blood-borne viral diseases are considered, such as Hepatitis B and C, the importance of prevention as sound cost-effective investment rises up the management and commissioning agenda.

How does the infectious diseases programme outcome in North Yorkshire and the City of York compare with PCTs around England?

Work in progress with DH/NCHOD (www.nchod.nhs.uk)



The standardised mortality ratio for deaths from infectious diseases in NYYPCT is statistically significantly lower than the national average – by 30%.

Our “cover” statistics for childhood immunisation and seasonal flu campaigns compare favourably too.

What are the age-related issues in this programme?

The national programme budget project does not as yet collect data by age in each programme (the difficulty being capturing GP prescribing data by age). The table below looks at the impact on hospital admissions for different age groups. Note that these age groups are in multiples of five years, but are not all the same size. They are the categories used to weight the allocation of resources to PCTs. Since we receive resources in these groupings it is appropriate to consider the health impacts at these ages, and plan ahead as the age structure of the population changes over the next ten years (see “the big picture” section).

Ages of admissions within this programme, NYYPCT residents, 2006/07

Programme	Age group (years)							Total
	0-4	5-14	15-44	45-64	65-74	75-84	85+	
Infectious Diseases	630	123	218	177	100	130	93	1471
All Programmes	12306	6027	48029	44253	28075	26841	12087	177618

Pre-school children dominate the picture, making up 43% of the total for the infections programme, but infections account for a relatively low proportion of all admissions. This section of the PCT population is not projected to change substantially in 10 years' time.

In pre-school and school-age children the immunisation of the entire eligible population with their primary immunisation schedules and boosters is a high priority and highly cost-effective where it prevents admissions and complications.

In the teen years and peak reproductive years, prevention of sexually transmitted infection, including HIV disease, assumes higher priority. Campaigns of awareness, opportunistic screening for Chlamydia, and rapid access to genito-urinary medicine clinics are the mainstay of cost-effective interventions.

Over the age of 65, and for all those with chronic disabling conditions and their carers, the winter influenza immunisation is important. Even so, over a fifth of the eligible population opt not to use this service. The prospect of a substantial seasonal flu outbreak remains a prospect (aside from the more remote risk of a true pandemic from a more virulent strain, for which we are taking planning precautions).

At all ages, prevention of infection acquired from clinical situations needs scrupulous attention, not just in the hospital wards but also in community settings, GPs' surgeries and dentists' surgeries.

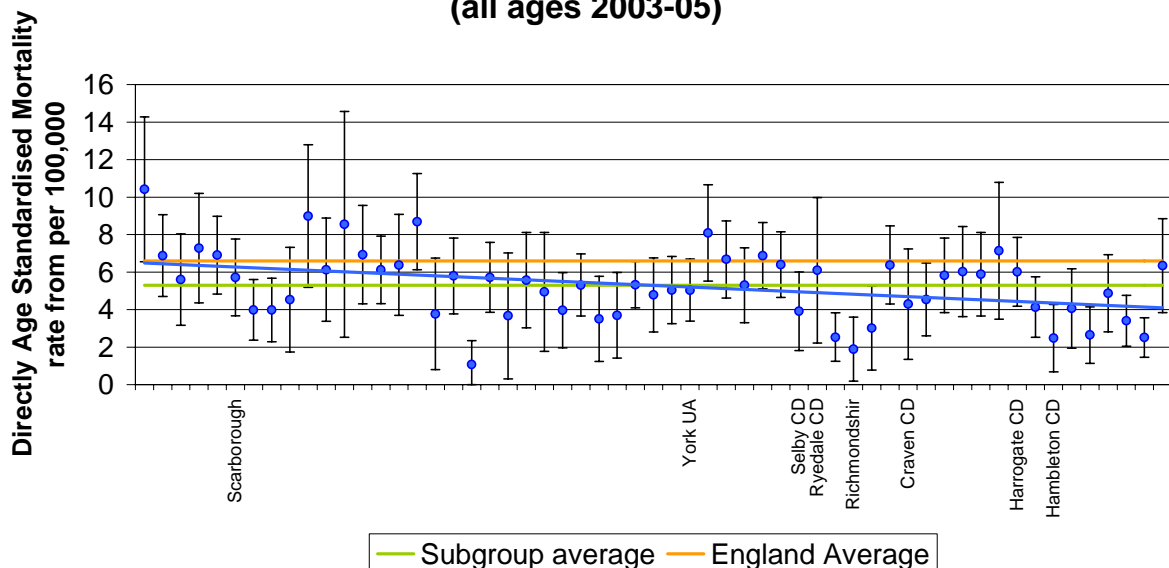
Gastro-intestinal upsets from food poisoning dominates the lists of notifiable diseases at all ages and is an area of joint work with local authority environmental health departments and the Health Protection Agency.

Do the rates of mortality correlate with deprivation, at Local Authority district and electoral ward level, in North Yorkshire and the City of York?

The following chart looks more closely at the Local Authority Districts that are served by the PCTs in the same ONS cluster as us to see if there are any geographical variations in mortality. The charts show Local authorities ranked from left to right according to deprivation as measured by the Indices of Deprivation 2004.

The numbers are relatively small, so the 95% confidence intervals (the “whiskers” extending above and below each dot o the chart) are wide. Where the “whiskers” cross the average the figure is not statistically significantly different. However, two of our more affluent areas – Hambleton and Richmondshire, have significantly lower mortality than the average.

Inequalities in mortality from infectious and parasitic diseases between Local Authority Districts served by the PCTs in the "Prospering Smaller Towns - B" ONS Subgroup (all ages 2003-05)



Rising affluence from left (low) to right (high). *NCHOD Workbench - July 2007*

Source: The Information centre for health and social care © Crown Copyright.

What guidance has NICE and the Joint Committee on Vaccination and Immunisation published in this programme?

Published Guidance

Publication date	Type of guidance	Topic
Feb-07	Public health interventions	Interventions to prevent sexually transmitted infections including HIV and to reduce under 18 conceptions
May-07	Clinical guideline	Feverish illness in children
Jul-07	Short clinical guideline	Acutely ill patients in hospital

In Progress Guidance

Publication date	Type of guidance	Topic
Nov-07	NPSA pilot	Systems based and IT based interventions in medicines reconciliation
Dec-08	Clinical guideline	Medicines concordance

Summary of commissioning questions for infectious diseases.

- In the light of our average investment in this programme compared with other PCTs, and the favourable outcomes we achieve, should we invest more or the same programme budget?
- Have we got the balance of activity and investment right at each step from prevention to terminal care, and between the partners (marginal analysis)?
- What are the most important things to do this year?

Prevention

- Increase childhood immunisation uptake, especially MMR, while reducing inequalities in uptake.
- Plan for implementation of the new HPV vaccine from September 2008.
- Continue to support immunisation training and updates for staff.
- Maintain uptake of the seasonal flu vaccine in over-65's, and improve uptake in clinical risk groups, especially amongst children in those groups.
- Work with partners to prevent the spread of blood-borne virus infections
- Update the PCT's pandemic flu plan in line with revised national guidance.
- Reduce rates of Clostridium difficile and MRSA in hospital and community settings
- Further develop the free condom distribution scheme
- Monitor implementation and uptake of antenatal infectious diseases

Diagnosis and Assessment

- Increase investment in Sexual Health Services, including contraceptive and tier two services to maximise appropriate access and deliver 48hr target.
- Ensure equitable access to Chlamydia Screening across the PCT's 15-24 year old population, and achieve target uptake rates.
- Improve local systems for the diagnosis and assessment of Hepatitis C.

Treatment

- Implement & promote the revised Antibiotic Prescribing Policy
- Conduct quality control checks of standards of hygiene and sterilisation in general practice and dentistry and facilitate improvements.
- Further develop integrated referral pathways across all sexual health services

Rehabilitation and Continuing Care

- Support for those living with chronic infection, eg Hepatitis C or HIV, including full implementation of Hep C action plan.

Terminal Care

- For end-stage infectious disease, such as HIV or Hepatitis C, support frank and informed planning for terminal illness, respecting patient choice for place of death whenever possible.