

**NHS TAYSIDE**

**POPULATION PROFILE**

**FOR INEQUALITIES STRATEGY**

**PHASE II**

**EXECUTIVE SUMMARY**

Directorate of Change and Innovation  
December 2004

## **INTRODUCTION**

This document provides a brief summary of Phase II of the Tayside Population Profile to support NHS Tayside's Inequalities Strategy.

If you have any questions or comments about the Population Profile please contact:

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### **The Profile**

This profile builds on the first phase work and provides general information on the population of Tayside and its constituent areas as well as data on factors which are known to impact on the health of the population and which demonstrate inequalities either within Tayside or when Tayside is compared with Scotland as a whole.

The factors which are included are presented within the Evans and Stoddart Model, which provides a socio-ecological model of health, acknowledging the complex interaction among factors which influence health and including a broader range of health outcomes than just disease.

The profile provides data on topics which are highlighted as priorities, either within 'Towards a Healthier Scotland' and policy documents which have followed on from there, or within the relevant milestones in the Social Justice paper 'A Scotland Where Everyone Matters.'

Detailed analysis of health determinants and outcomes, in terms of inequalities, is included in the profile, as well as associations with deprivation.

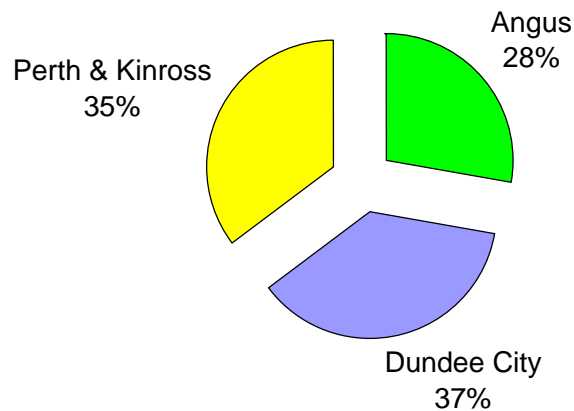
## POPULATION DYNAMICS

Demography is an important factor in tackling health issues. Many illnesses, conditions and behaviours are gender or age related and the planning of initiatives or services needs to consider geographical or other factors relating to target populations.

### Population

The population of Tayside local authority areas (2003 mid year estimate) is 386,600. 107,520 live in Angus, 143,090 in Dundee City and 135,990 in Perth and Kinross. The chart below shows the proportions this represents. Tayside NHS Board area has an estimated population of 386,550 slightly lower than the local authorities' total because a small part of Tayside is covered by Fife Health Board.

**Proportions of Tayside population (Total = 386,600)**



Source: GRO 2002 mid-year population estimates

- ❑ In Tayside, the estimated population aged under 20 forms 23% of the total population. In Scotland as a whole, 24% of the population is under 20.
- ❑ It is estimated that 19% of the total population of Tayside is aged 65 or over. The estimated population aged 65 and over in Scotland forms 16% of the total population.

### Changes in Population Size

The April 2001 Census has shown that the population of Tayside in recent annual population estimates has been underestimated. The mid-year 2000 estimate is now believed to have been 1.4% short of the total population of Tayside at that time.

### Ethnic Minority Population

The 1991 and 2001 Censuses show that the non-white ethnic population in Tayside has increased by over 3,000 people to 7,495. The percentage of this population within Tayside as a whole has risen from 1.2% to 1.9% over the same time period. Over 70% of the ethnic minority population of Tayside live in Dundee City.

**Births**

There was an average of 3924 live births in Tayside over the period 1998 – 2002.

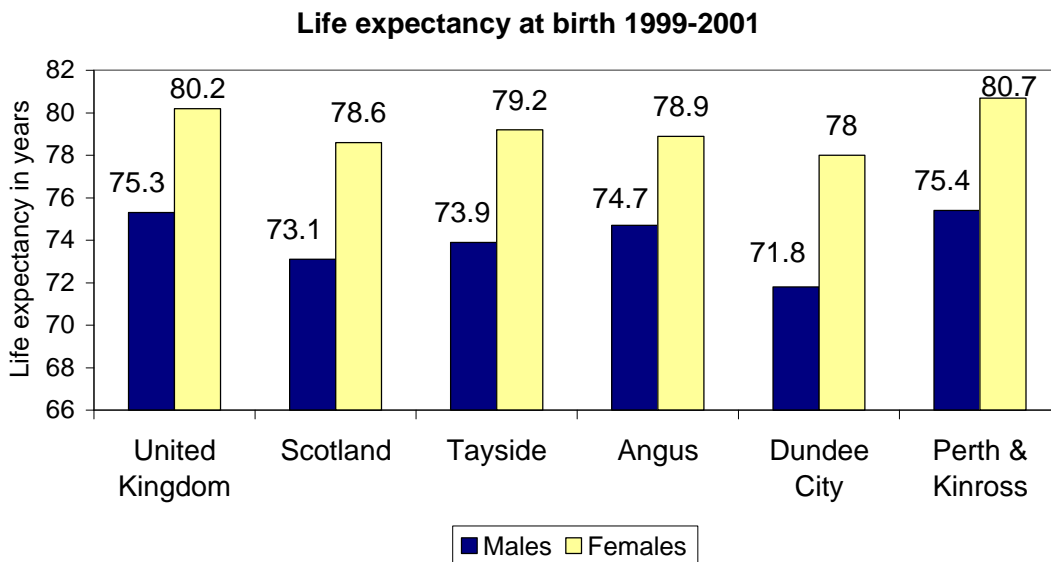
**Life Expectancy**

Life expectancy at birth for males and females is higher in Tayside than in Scotland but lower than in the UK.

Within Tayside, males in Dundee City can expect to live almost 3 years less than males in Angus and almost 4 years less than males in Perth and Kinross.

Females in Dundee City are expected to live almost a year less than females in Angus and 2.7 years less than those in Perth and Kinross. There is an association between deprivation and life expectancy.

Within each area, there is a relative inequality of life expectancy between men and women. This is common across the developed world and the causes are not fully understood. However, the gap does tend to be wider in deprived areas.



Source: Office for National Statistics, Crown Copyright 2003  
 Note: Scale of life expectancy in years does not start at 0.

## PROSPERITY

### Deprivation

The Carstairs measure of deprivation provides seven deprivation categories, Deprivation Category 1 being the most affluent and Deprivation Category 7 being the most deprived.

Over half of the population of Dundee City live in Deprivation Categories 6 or 7. When children aged 0-14 are considered, the figure rises to 62%.

Deprivation Category	Angus	Dundee City	Perth & Kinross
1 and 2 (affluent)			
3			
4 & 5			
6 & 7 (deprived)			

*Data source: "Carstairs scores for Scottish postcode sectors from the 2001 Census"  
Philip McLoone, MRC Social & Public Health Sciences Unit, March 2004*

The newly produced Scottish Index of Multiple Deprivation (SIMD) also contributes a scoring system which ranks areas in relation to deprivation measured by various categories. However, much of the health data is not available for areas which match those used in the SIMD calculations. It is anticipated that in the future, data linked to the Scottish Index of Multiple Deprivation will become increasingly available.

### Income and unemployment

Within Tayside, Dundee City experiences higher levels of unemployment than the other two areas, as well as lower average incomes. However, within each local authority area there is a wide range of unemployment levels. The proportion of children living in workless households is also higher in Dundee City but the other two local authority areas also have postcode sectors where around one in three children live in households where no one is in employment.

### Free school meals

The number of children entitled to free school meals is a commonly used indicator of poverty. 20.2% of children in primary schools and 16% of children in secondary schools in Scotland are entitled to free school meals. Angus and Perth & Kinross are well below

the Scottish average for rates of free school meals. Dundee City is higher with 27.6% of primary school pupils entitled to free meals and 21.2% in secondary schools. However, all three areas have some schools with rates higher than the Scottish average. This gives an indicator of poverty in the catchment areas of particular schools.

### **DISEASE (Morbidity)**

Admissions for asthma in children aged 0-19 (1998 – 2003) are similar in Angus and Perth & Kinross but rates in Dundee City are approximately one third higher than the other two areas

Tayside residents living in the most deprived areas (Dundee) are 1.6 times more likely to have type II diabetes than those least deprived. There is also an association with increased BMI in those areas

Emergency admissions in those aged 65 - 84 (2002/2003) are 22% higher in Dundee City than in Angus. Rates in Perth & Kinross are slightly higher than Angus

Rates of admissions to mental health specialties in 2002 were 44% higher in Dundee City than in Angus. Rates in Perth & Kinross were slightly higher than Angus

Lower level data highlights individual areas within each of the local authorities which demonstrate high levels of admissions compared with these averages.

### **DISEASE (Mortality)**

Average death rates for 2000-2002 (all causes) in under 65s are 44% higher in Dundee City than in Perth and Kinross and 16% higher than in Scotland as a whole. Angus rates are higher than those in Perth & Kinross.

Standardised death rates (2000-2002) from cancer show that Dundee City rates are 19% higher than Perth & Kinross. Angus rates are slightly higher than Perth & Kinross. When lung cancer alone is considered, Dundee City rates are 43% higher than Angus, although they are only 6% higher than Scotland as a whole. Perth & Kinross rates are slightly higher than those in Angus.

### **Directly standardised death rates per 100,000 population, Lung Cancer, all ages**

	2000	2001	2002	Average 2000-2002
Scotland	58.6	57.8	59.1	58.5
Tayside Health Board	49.9	49.3	54.8	51.3
Angus	41.9	39.1	49.4	43.5
Dundee City	57.4	63.4	65.1	62.0
Perth & Kinross	48.2	43.7	48.8	46.9

Source: GRO deaths, Skipper

Notes: Standardised to the European population

Lung cancer covers malignant neoplasm of the trachea, bronchus and lung

ICD10 C33-34

Standardised death rates (2000-2002) from coronary heart disease show that Dundee City rates are 37% higher than Perth & Kinross and 11% higher than the Scottish average. Angus rates are approximately mid way between the other two areas.

Standardised death rates (2000-2002) from stroke show that Angus rates are similar to the Scottish average, but are 17% higher than rates in Dundee City and 12% higher than Perth and Kinross. Death rates in Tayside have been lower than the Scottish average over time.

Local analysis highlights wide inequalities across postcode sectors or electoral wards within each local authority area.

## **HEALTH AND FUNCTION**

Rates of claimants of Disability Living Allowance are 78% higher in Dundee City than in Perth & Kinross and 54% higher than in Angus

Rates of claimants of Attendance Allowance are 33% higher in Dundee City than in Angus and 24% higher than in Perth & Kinross

Rates of claimants of Incapacity Benefit are lower than the Scottish average in all three local authority areas but Dundee City rates are 51% higher than in Perth & Kinross and 33% higher than in Angus

Rates of claimants of Severe Disablement Allowance are 50% higher in Dundee City than in Scotland as a whole and 88% higher in Dundee City than in both Perth & Kinross and Angus. Numbers of claimants for this allowance are small in comparison to other benefits

## **HEALTH AND SOCIAL SERVICE USE**

Barriers to accessing services can be linked to rural deprivation and the Scottish Index of Multiple Deprivation shows that a number of electoral ward areas in Perth & Kinross are among the lowest in Scotland for access to services. When this is combined with poverty or lack of transport there are considerable health implications.

There is an association between deprivation and late presentation with illness and there is local evidence that people who live in deprived areas are less likely to access certain medical procedures such as angioplasties or coronary artery bypass grafts

There is a range of cultural issues, which affect the use of health care services by those from ethnic minority communities.

Work carried out in Tayside with lesbian, gay bisexual and transgender people highlighted that for almost 1 in 5, sexuality affected their willingness to be open when contacting healthcare services. Inappropriate assumptions about sexuality were a particular problem reported in relation to service providers.

## WELLBEING

Standardised death rates from suicide and self harm in males have been consistently higher over time in Dundee City than in the other two areas. Tayside rates as a whole have reduced towards the Scottish average over the last few years. Rates vary within local authority areas.

Admissions for suicide and self harm also vary across the areas.

### **Age standardised admissions per 100,000 population for suicide and deliberate self harm 2000-2002**

<b>Area</b>	<b>Rate per 100,000</b>
Angus	303.1
Dundee City	501.8
Perth & Kinross	322.8

*Source: Health Scotland Community Profiles 2004*

There are variations in the rates of prescribing of anti-depressant related drugs across Tayside. Some of the variation may be related to differences in prescribing practice.

### **Defined Daily Doses of anti-depressant related drugs by local authority 2002**

	<b>Defined daily dose*</b>
Angus	1797.5
Dundee City	2329.6
Perth & Kinross	1642.8

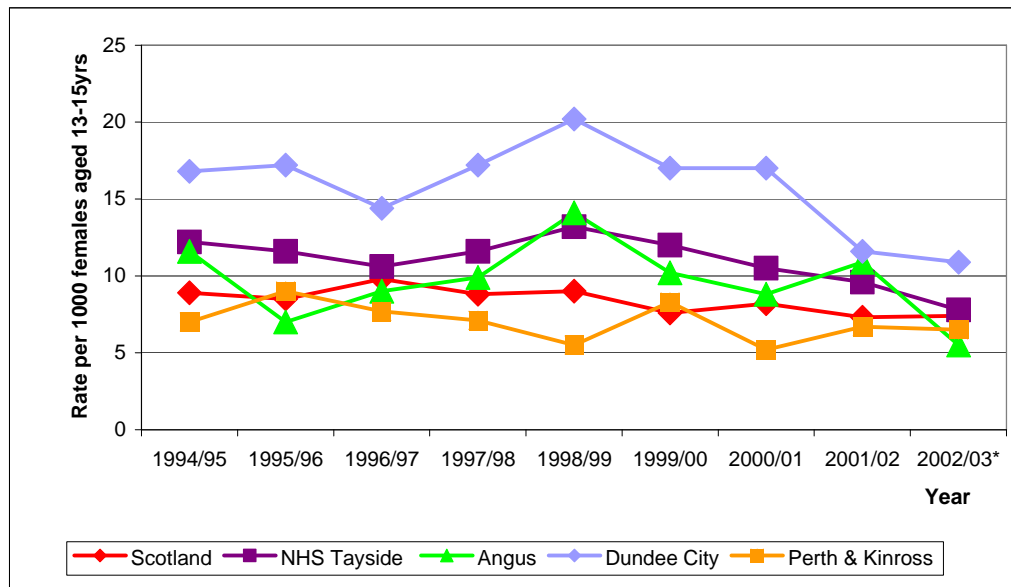
*Source: Health Scotland Community Profiles 2004; Data source: ISD Prescribing Information System*

*\*Defined daily dose, when divided by 365 gives an estimate of the approximate number of patients prescribed the particular medicine at any one time.*

## INDIVIDUAL RESPONSE/BEHAVIOURS

The rate of teenage pregnancies in the 13-15 year age group in Dundee City is the highest in Scotland, although it has reduced considerably over the last two years. Conception in this age group is more likely to end in an abortion than a delivery. Teenage conception is associated with deprivation

## Rate of teenage conceptions per 1000 females age 13-15 years



Notes: \*2002/03 figures are provisional  
 Source: SMR01 and SMR02; ISD Online

The level of abortions in women aged 15-44 is higher in Tayside than in Scotland as a whole and is particularly high in Dundee City.

The rate of new episodes of sexually transmitted infections is higher in Tayside than in Scotland as a whole

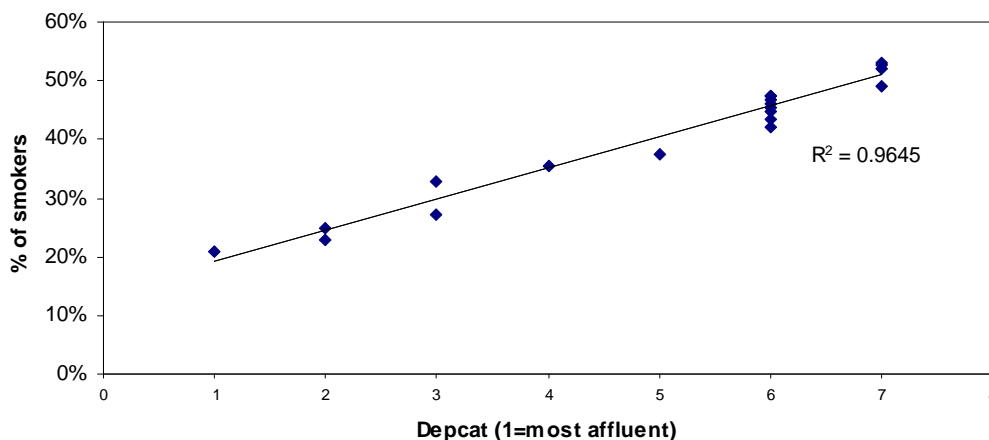
The rate of low birthweight babies is higher in Dundee City than in the rest of Tayside or in Scotland. Within Tayside, low birthweight is associated with deprivation

Breastfeeding rates vary considerably between the deprived and affluent areas. Rates are particularly low in Dundee City at discharge and at 6-8 week review. There is an association with deprivation.

The proportion of 5 year olds who are free from dental caries is lower in Angus than in the rest of Tayside or Scotland. Tayside rates are well below the national target of 60%

6% of 13 year olds and 22% of 15 year olds in Tayside smoke tobacco regularly. In adults, smoking rates are more than double in deprived communities when compared with the least deprived communities. There is a strong association between smoking and deprivation as the Dundee City chart below shows

**Proportion of smokers by Deprivation Category: Dundee City**



Source: Health Scotland Community Profiles

Data: Estimated number and percentage of current smokers (age 16-74) 2001: Portsmouth University

There is an association between maternal smoking and deprivation. If mothers continue to smoke, there are implications for the health of their children both during pregnancy and when they become passive smokers after birth.

The national prevalence study (*ISD Online, Drug Misuse Statistics*) estimates the prevalence of problematic drug use to be 1.2% in Angus, 3.5% in Dundee City and 1.3% in Perth and Kinross.

Results from the Tayside Health and Lifestyle Survey (2000) suggested that:

- ❑ Young people aged 16-24 years were least likely to report eating a healthy diet.
- ❑ People in the more deprived groups also reported a less healthy diet than the more affluent.

Over 1 in 5 pre-school children in Tayside are overweight or obese (23.1% in Angus, 21.2% in Dundee City and 20.8% in Perth and Kinross).

An estimated 37% of adults in Tayside are overweight and 21% are obese. Actual numbers are shown in the table.

**Numbers in Tayside who are overweight and obese**

Angus		Dundee		P&K		Tayside	
Overweight	Obese	Overweight	Obese	Overweight	Obese	Overweight	Obese
30677	17121	48462	27465	37490	20897	116629	65483

Source: Scottish Health Survey 1998

## **CONCLUSION**

Phase II of the population profile documents the above data at community levels, either electoral ward or postcode sector. Much of the deprivation category information is based on postcode sector.

While numbers are small for some areas, trends consistently show an association between deprivation and ill health as well as an association between deprivation and the type of individual responses which lead to ill health. The Evans and Stoddart model, in highlighting the complex interactions among all of those factors, helps identify target populations and areas.