



POPULATION PROFILE FOR INEQUALITIES STRATEGY

SUMMARY OF MAIN FINDINGS PHASE III

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INTRODUCTION

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

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The Profile

This profile builds on the previous phases of the inequalities 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.'

This summary provides an overview of some of the key indicators of inequality in Tayside. Detailed analysis of health determinants and outcomes is included in the profile, as well as associations with deprivation.

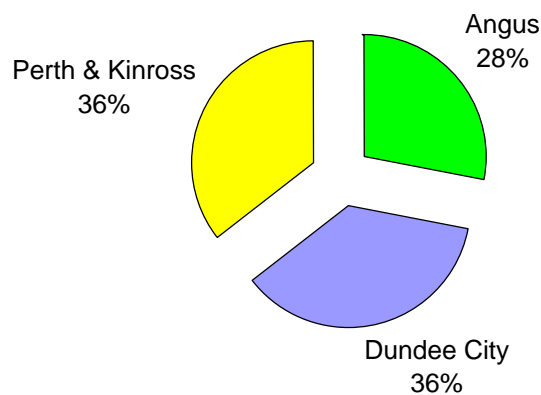
POPULATION DYNAMICS

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.

TAYSIDE POPULATION

The population of Tayside local authority areas (2005 mid year estimate) is 389,740. 109,170 live in Angus, 142,170 in Dundee City and 138,400 in Perth and Kinross. The chart below shows the proportions this represents. Tayside NHS Board area has an estimated population of 389,707, slightly lower than the local authorities' total because a small part of Tayside is covered by Fife Health Board.

Proportions of Tayside population (Total = 389,740)



Source: GRO 2005 mid-year population estimates

- ❑ In Tayside, the estimated population aged under 20 forms 23% of the total population, the same proportion as for the Scottish population as a whole.
- ❑ It is estimated that 20% 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.

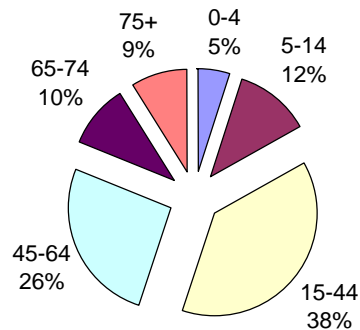
Ethnic Minority Population

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.

Age

The proportions in the various age groups in the Tayside population are as shown below.

Age groups in Tayside NHS Board population



Source: GRO 2005 mid-year population estimates

Births

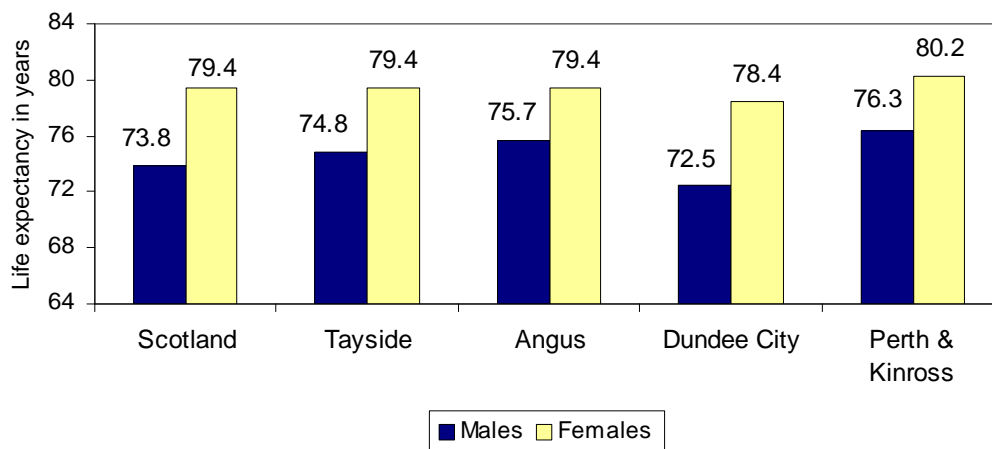
There was an average of 3854 live births in Tayside over the period 2000-2004. Local authority average births for the same period were 1065 to residents in Angus, 1491 to Dundee City residents and 1298 for residents in Perth and Kinross.

Life Expectancy

Life expectancy at birth for females is higher in Tayside than in Scotland and for males, Tayside is the same as the Scottish average. However there are wide differences across Tayside and within each local authority area.

From 2002-2004 figures, males in Dundee City can expect to live over 3 years less than males in Angus and almost four years less than males in Perth and Kinross. Females in Dundee City are expected to live a year less than females in Angus and almost two years less than females in Perth and Kinross.

Life expectancy at birth 2002 - 2004



Source: GRO Scotland Note: Scale of life expectancy in years does not start at 0.

The Dundee City figures show a range of 65.1 years - 79 years for males and 72.9 years - 84.4 years for females across postcode sectors.

The range of life expectancy for Angus residents is 68.9 years – 78.5 years for males and 75.5 years – 83.3 years for females.

The range of life expectancy for Perth and Kinross residents is 69.7 years – 83.1 years for males and 77 years – 88.6 years for females.

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%.

Distribution of deprivation per 100 people by local authority (total population)

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

Scottish Index of Multiple Deprivation

The Scottish Index of Multiple Deprivation (SIMD) measures deprivation over a number of indicators in data zones, areas of 500 – 1000 people. The table below shows the percentage of data zones in the 10% most deprived data zones in Scotland for each local authority area over the range of indicators. Dundee City has almost one in five data zones in the lowest 10% for Scotland and higher proportions in the worst 10% for some of the indicators.

Proportion of data zones in SIMD most deprived decile in Scotland

	SIMD (total)	Income	Housing	Health	Education, Skills, Training	Employment	Geographic access and telecommunications
Angus	0	2.82%	0	0	0.7%	0.7%	19.01%
Dundee City	18.99%	21.23%	36.31%	17.88%	12.29%	15.64%	0.56%
Perth & Kinross	1.14%	2.86%	0	1.14%	1.14%	0	21.14%

Source: Scottish Neighbourhood Statistics

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, approaching half in some areas, 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. 19.9% of children in primary schools and 15.6% of children in secondary schools in Scotland are entitled to free school meals. Angus and Perth & Kinross are below the Scottish average for rates of free school meals while Dundee City has higher rates. However, all three areas have some schools with rates higher than the Scottish average and there is a wide range of rates across the areas. This gives an indicator of poverty in the catchment areas of particular schools.

Free School Meals in Education Authority Schools 2004/05

Local Authority	Percentage entitled to free school meals (Primary)	Percentage entitled to free school meals (Secondary)
Angus	15.3%	9.7%
Dundee City	27.1%	21.4%
Perth & Kinross	7.4%	4.9%
Scotland	19.9%	15.6%

Source: Scottish Executive publications

DISEASE (Morbidity)

Diabetes

The overall prevalence of diabetes in Tayside in December 2004 was 3.5% (n=13582). Prevalence for type 1 and type 2 diabetes was 0.4% (n= 1470) and 3.1% (n= 12112) respectively. Of Tayside patients 10.8% were type 1 and 89.2% were type 2 patients.

Research has shown that Tayside residents living in the most deprived areas in 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.

Asthma

The numbers and rates of admissions for asthma in children show that although numbers are small, the Dundee rate has been consistently higher than the Tayside average over time. However, there may be a variety of reasons for variations in rates including those associated with the management of the condition, admission policy or individuals having multiple referrals or admission.

Mental health

Rates of admissions to mental health specialties in 2004/05 (provisional figures) show variations across Tayside, with 434.9 per 100,000 in Dundee City, 325.2 per 100,000 in Angus and 243.6 per 100,000 in Perth and Kinross.

Falls in the elderly

Rates of admissions following a fall in the elderly population vary across Tayside. 2005 figures were 1159.7 per 100,000 population in Angus, 1425 per 100,000 in Dundee City and 1241.5 per 100,000 in Perth and Kinross.

DISEASE (Mortality)

Death rates

Average death rates for 2000-2004 (all causes) in under 65s are over 40% higher in Dundee City than in Perth and Kinross and 17% higher in Dundee City than in Scotland as a whole. Angus rates are higher than those in Perth & Kinross.

Cancer

Standardised death rates (2000-2004) from cancer show that overall, Dundee City rates are 11% higher than Perth & Kinross. Angus rates are slightly higher than Perth & Kinross. Tayside rates are 6% higher than the Scottish average. When lung cancer alone is considered, Dundee City rates are 41% higher than Angus, and 14% higher than Scotland as a whole. Perth & Kinross rates are slightly higher than those in Angus.

CHD

Data from 2000-2002 show that when death rates from coronary heart disease are compared for different postcode sectors, there is wide variation. Death rates tend to be higher in areas of higher deprivation.

- ❑ Rates in Angus range from 99.9 – 192.9 per 100,000
- ❑ Rates in Dundee City range from 97.1 – 438.4 per 100,000
- ❑ Rates in Perth & Kinross range from 66.8 – 158.8 per 100,000

Stroke

Death rates from stroke for 2004 showed variations across postcode sectors in Tayside. It should be noted, however that numbers are very small in many of the areas.

- ❑ The Angus rates varied from 30.8 – 349.0 per 100,000 with an average of 160.3 per 100,000 (One ward had no measurable rate)
- ❑ Dundee City rates varied from 37.5 - 294.0 per 100,000 with an average of 132.5 per 100,000
- ❑ Perth and Kinross rates varied from 24.8 – 412.5 per 100,000 with an average of 138.9 per 100,000
- ❑ The Tayside average rate for 2004 was 142.6 per 100,000

HEALTH AND FUNCTION

Rates of claimants of Disability Living Allowance, of Severe Disablement Allowance and of Attendance Allowance are higher in Dundee City than in Perth & Kinross and in Angus

Dundee city had 9,800 Incapacity Benefit claimants at December 2005. There were 4,700 in Perth and Kinross and 4,200 in Angus.

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

Death rates from suicide and self harm have been consistently higher over time in Dundee City than in the other two areas. Tayside rates as a whole have reduced over the last few years and are now the same as the Scottish average, but rates vary across local authority areas. Male death rates from suicide and self harm are considerably higher than those for females in all areas and this is a common finding.

Death rates per 100,000 population for suicide and self inflicted injury 2000-2004

Area	Rate per 100,000	
	Males	Females
Scotland	19	6
Tayside	19	6
Angus	15	4
Dundee City	23	5
Perth & Kinross	18	9

Source: GRO, Vital Events Reference Table & Mid-Year Population Estimates 2000-2004

Data for 2002, taken from the Health Scotland Community Profiles shows that 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

	Defined daily dose*
Angus	1797.5
Dundee City	2329.6
Perth & Kinross	1642.8

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

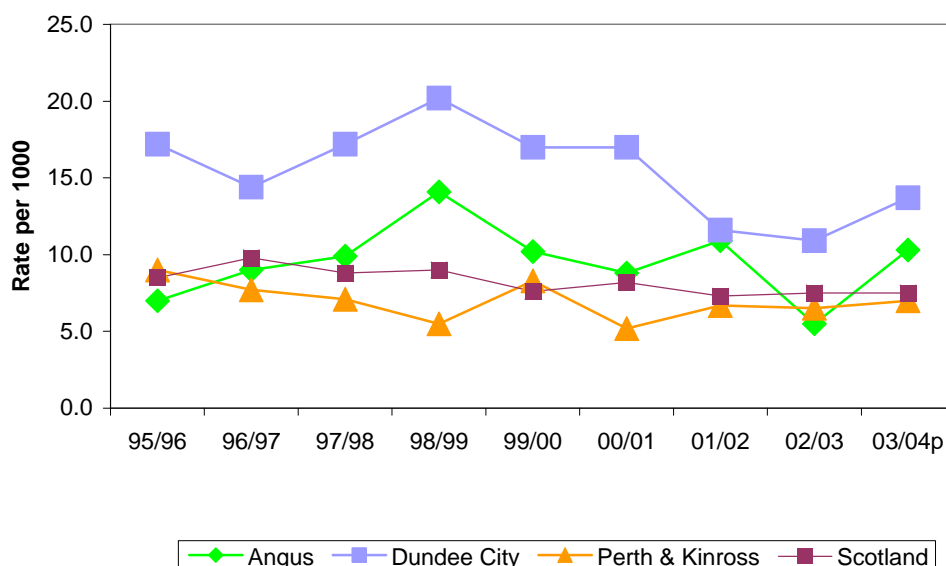
*Defined daily dose, when divided by 365 gives an estimate of the approximate number of patients prescribed the particular medicine at any one time.

INDIVIDUAL RESPONSE/BEHAVIOURS

Teenage conception

The rate of teenage pregnancies in the 13-15 year age group in Dundee City is the highest in Scotland, although the trend shows reducing rates. The rate in Angus has shown fluctuations over many years, while the Perth and Kinross rate has been consistently just below the Scottish rate. Conception in this age group is more likely to end in an abortion than a delivery. Teenage conception is associated with deprivation. The chart below shows fluctuations in the rates which are partly due to small numbers.

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



Source: SMR01 and SMR02; ISD Online P= provisional

Abortion

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.

STI

The rate of new episodes of sexually transmitted infections is higher in Tayside than in Scotland as a whole. In Tayside, the number of diagnoses of chlamydia is increasing among females in particular, but also in males although numbers are small.

Low birthweight

Low birthweight (<2500g) rates for 2003/04 for the three local authority areas are Angus 6%; Dundee City 8% and Perth & Kinross 5%.

Breastfeeding

Breastfeeding rates vary considerably between the deprived and affluent areas and there is an association with deprivation. For example, within each local authority area when rates for electoral ward are examined, there is wide variation in mothers breastfeeding at discharge from hospital.

- ❑ Angus rates vary from 31% (Forfar South) to 73% (Brechin West and Sidlaw West)
- ❑ Dundee City rates vary from 17% (Whitfield) to 83% (Barnhill)
- ❑ Perth and Kinross rates vary from 35% (South Letham) to Pictstonhill (96%)

Breastfeeding recorded at discharge by area of residence 2003/04

	% Breastfeeding at discharge	% Breastfeeding at 6-8 week review
Tayside	53%	36.8%
Angus	54%	35.9%
Dundee City	42%	26.2%
Perth & Kinross	65%	49.8%

Source: SMR02

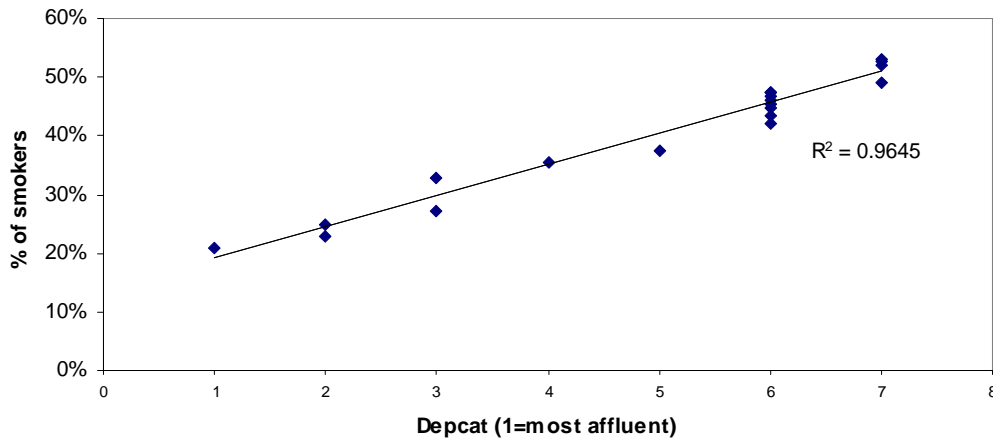
Dental health

The proportion of 5 year olds with no obvious dental decay in Dundee City is well below the target of 60% at 44.9%. Rates in Angus are 56% and in Perth and Kinross 57.8%. When individual schools are considered within each of the local authority areas, there is a strong association between poor dental health and deprivation. This is demonstrated when deprivation is measured by Carstairs or by the Scottish Index of Multiple Deprivation.

Smoking

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 are three postcode sectors in Angus with smoking rates around 40% or more, thirteen such postcode sectors in Dundee City and three in Perth and Kinross.

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 proportion of mothers smoking during pregnancy varies across electoral wards in Angus from 4% to 52%.
- ❑ The proportion of mothers smoking during pregnancy varies between 10% and 55% across electoral wards in Dundee City
- ❑ The proportion of mothers smoking during pregnancy varies between 0% and 43% across electoral wards in Perth and Kinross

Diet and nutrition

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

The health inequalities 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.