Introduction

• NeSS: an overview
• Indices of Multiple Deprivation
  – Overview
  – Domains of Deprivation
  – Uses & Limitations
• Neighbourhood Statistics
  – Website functionality
  – Classifications eg Urban/Rural
  – Example of use of multiple datasets
• New visualisation tools
Neighbourhood Statistics Website

• Part of National Statistics On-line
• Freely available to anyone to use
• Over 100 thousand visitors a month
• Information published for small area geographies (Local authority or, preferably, lower)
• Aggregate data, indicators and point data
• In addition to data, the NeSS website offers a lot of ‘value-added’ services.
  – area profiles
  – mapping capability (StatsViewer)
  – time series capability
NeSS is moving from traditional administrative boundaries to the new Super Output Areas

**Administrative Geography**
- Districts
- 2003 Wards
- Output Areas avg 300

**Statistical Geography**
- Districts
- Upper avg 25,000?
- Middle avg 7,500
- Lower avg 1,500
- Output Areas avg 300

Super Output Areas are more consistent in size and ‘make-up’, and stable over time
The new Super Output Areas highlight where efforts need to be targeted.
Indices of Deprivation 2004

- Measure of relative deprivation
- 7 domains representing major forms of deprivation
- Weighted and brought together to form the Index of Multiple Deprivation
- Series of District and County Council measures
- Two supplementary Indices covering children and older people

(Will be updated in 2007 – work already started, commissioned by the Department for Communities & Local Government)
Importance/Use made of the ID 2004

• Key tool for targeting regeneration resources at the most deprived areas
• Used by:
  – central government e.g Neighbourhood Renewal Funds
  – Local Government
  – Non-govermentenal organisations
• Important issue for many people
The domains

- Income
- Employment
- Health deprivation and disability
- Education, skills and training
- Barriers to Housing and Services
- Crime
- Living Environment
Major dimensions/domains of deprivation

- Income
- Employment
- Health
- Education
- Crime
- Barriers to Housing & Services
- Living Environment
- IMD
Six local authority district measures of deprivation

- Income
- Employment
- Extent
- No overall district measure
- Concentration
- Average of ward scores
- Average of ward ranks
Higher level summary measures:

- 6 measures giving different dimensions of deprivation
  - Income
  - Employment
  - Average of scores
  - Average of ranks
  - Local Concentration
  - Extent
The domains

Employment

Measures for working age population:

• Unemployment claimant count
• Incapacity benefit
• Severe Disablement Allowance
• New Deal Participants 18 -24 (not in claimant count)
• New Deal Participants 25+ (not in claimant count)
• NDLP 18+ voluntary participants
The domains

Health and disability

• Measures for all population:
  • Potential years of life lost
  • Comparative illness and Disability Ratio - to measure chronic conditions
  • Measures of acute morbidity from emergency admission data
  • Mental ill health indicator
The domains

Education, Skills and Training

- Separate sub-domain for children:
  - KS 2 - 4 attainment data from PLASC
  - Young people not staying on in school above 16
  - Proportion of those aged 20 not in HE
  - Secondary school absence rate
- Separate sub-domain for adults:
  - Working age adults with no qualifications
- Equal weights to combine sub domain into single domain
The domains

Barriers to Housing and Services

• Broader definition than geographical access

• Access to housing included here: quality of housing in living environment domain

• Other barriers sub-domain:
  • Household overcrowding
  • Homelessness applications
  • Potential difficulty of access to owner occupation
The domains

Barriers to Housing and Services 2

- Geographical barriers sub-domain for all people:
  - Road distance to GP surgery
  - Road distance to general store/supermarket
  - Road distance to primary school
  - Road distance to post office
- Sub-domains combined using equal weights
The domains

Crime and Disorder

• Use all recorded crime collected from 30 police forces
• Create 4 composite indicators
  • Burglary - to include 4 crime offence types
  • Theft - to cover 5 crime offence types
  • Criminal damage - to include 10 crime offence types
  • Violence - to cover 14 crime offence types
• Totals were constrained to keep in line with published figures
• 4 composite indicators were standardised and combined using factor analysis
The domains

The Living Environment

- New domain that includes measures of housing quality found in previous housing domain
- Sub-domain on indoors living environment:
  - Social & private sector housing in poor condition
  - Houses without central heating
- Sub-domain on outdoors living environment
  - Air quality
  - Road traffic accidents involving pedestrians and cyclists
- Single domain: 66% indoors: 33% outdoors
Two SOA’s that are ranked similarly on overall Index, but very different patterns within domains:

Pattern is different - need to look at further data sources to explain the differences. Eg Census info, area classifications and neighbourhood statistics more widely
The Methodology

Dealing with small numbers: shrinkage estimation

- Combining indicators within domains:
  - income, employment and crime: rates
  - other domains: factor analysis to arrive at score

- Combining domains into single index:
  - rank domain scores
  - exponential transformation
  - explicit weights
Methodology continued

• Weights used:
  • Income 22.5%
  • Employment 22.5%
  • Health, deprivation and disability 13.5%
  • Education, skills and training 13.5%
  • Barriers to services 9.3%
  • Crime 9.3%
  • Living environment 9.3%
How has the ID04 been used?

The ID04 has been used as:
– A tool for analysing patterns of deprivation
– A tool for use in strategy development
– A tool for use in the allocation of resources
– A tool to pinpoint areas for development or specific initiatives
What you can and cannot do with the ID 04

• ID04 provides a snapshot of deprivation that exists at one point in time (2001/02)
• It is not about measuring change over time
• It is not about performance management
• Provides a good starting place but needs to be complemented by other data

• Hence ….. Neighbourhood Statistics (NeSS)
# Data on the Neighbourhood Statistics Website

- *Data covering these domains:*
  - Access to Services
  - Crime and Safety
  - Economic Deprivation
  - Education, Skills & Training
  - Health
  - Housing
  - Income and Lifestyles
  - Physical Environment
  - Population and Migration
  - Work Deprivation

- *Supplied by:*
  - ONS
  - Dept of Health
  - Department of Work and Pensions
  - Department for Communities and Local Government
  - Dept for Education and Skills
  - Home Office
  - Valuation Office
  - Met Police
  - Dept for Transport
  - Registry Trust
  - DEFRA
  - and others..
In addition to data supplied from within the GSS, we also develop indicators.

- **Indicator development:**
  - Taking count data and transforming it into rates or percentages that can be compared between areas.
    - For example, DWP provide us with counts of benefit claimants from which we produce rates of claimants per head of working population.
  - All indicators available on NeSS can be accessed via the Indicator Catalogue.

- **Analysis in place of Data.**
  - In situations where counts of data are too low for publication at small areas.
  - Create categorical data or maps to enable key messages to be published. For example teenage pregnancies…
Example, teenage pregnancies in London wards, 2001 – 2003 (note: work in progress)
The new version of the Indicator Catalogue will allow quick access to data.

<table>
<thead>
<tr>
<th>Domain</th>
<th>Dataset Name</th>
<th>Indicator Name / Data Type</th>
<th>Available Geographies</th>
<th>Dataset Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health and Care</td>
<td>Teenage Conceptions, 2002</td>
<td>Teenage Conceptions (Rate per 1000)</td>
<td>✓ ✓ ✓ ✓ ✓</td>
<td>2002</td>
</tr>
<tr>
<td>Health and Care</td>
<td>Teenage Conceptions, 2003</td>
<td>Teenage Conceptions (Rate per 1000)</td>
<td>✓ ✓ ✓ ✓ ✓</td>
<td>2003</td>
</tr>
<tr>
<td>Health and Care</td>
<td>Years of Potential Life Lost Indicator, 2000-2003</td>
<td>Years of Potential Life Lost Indicator (Ratio)</td>
<td>✓ ✓ ✓ ✓ ✓ ✓</td>
<td>2000 - 2003</td>
</tr>
<tr>
<td>Housing</td>
<td>Changes of Ownership by Dwelling Price, 2001</td>
<td>Changes of Ownership by Dwelling Price, Type of Sale: Cash as Percentage of All Sales (Percentage)</td>
<td>✓ ✓ ✓ ✓ ✓</td>
<td>2001</td>
</tr>
<tr>
<td>Housing</td>
<td>Changes of Ownership by Dwelling Price, 2002</td>
<td>Changes of Ownership by Dwelling Price, Type of Sale: Cash as Percentage of All Sales (Percentage)</td>
<td>✓ ✓ ✓ ✓ ✓</td>
<td>2002</td>
</tr>
</tbody>
</table>

Expected to be available Autumn 06.
The easiest way into NeSS is via www.statistics.gov.uk
Neighbourhood Profile

• Enter a postcode ... .... and get a range of data for that area in a variety of visualisations.
• .... and find out location of ‘services’ for your area.
A wealth of information can now be explored for your chosen neighbourhood.

PO15 SRR which is part of Titchfield ward is located in the Fareham local authority in South East region.

For statistical purposes the country has been divided into small blocks of land called Output Areas. These allow us to look in more detail at smaller local areas. Output Areas have been combined to form two layers of Super Output Areas known as Lower Layer Super Output Areas (LSOA) and Middle Layer Super Output Areas (MSOA) 0. This profile relates to the Lower Layer Super Output Area referred to as Fareham 002D.

Your area is also in the Local Education Authority of Hampshire

You can also compare Titchfield with other areas which have similar characteristics by using the Area Classification.

Further information on this classification can be found via the link on the Neighbourhood Statistics front page.

Note: This neighbourhood profile is for guidance only. The areas for which we hold statistics may not precisely follow the boundaries for towns and postcodes. We recommend that you view the map to see the exact area covered by the profile.
We can look at our Neighbourhood’s Index of Deprivation compared to others in the UK.

Indices of Deprivation 2004: Ranks for LSOA Fareham 002D

Most deprived LSOA

This LSOA

Least deprived LSOA

Index of Multiple Deprivation: 26,350
Income Deprivation: 24,536
Employment: 30,757
Health: 30,347
Education: 21,364
Barriers to Housing and Services: 3,016
As part of increasing analytic capacity, StatsViewer allows thematic maps to be viewed alongside data...
... with the option of superimposing a map of the area ...
... or viewing the location of a variety of services.
You can also access the datasets directly

- Library of datasets to view or download
- Pick and mix variables from different datasets

Click to access library of datasets.
All datasets are stored within a Hierarchy of regeneration related domains.

You can find and select any dataset on the site by keyword search or browsing by domain.

Click on ☞ to view comprehensive metadata for each dataset.
Data can either be viewed using NeSS tools, or downloaded for analysis in Excel.
You can also access NeSS tools for data at any published geography.

- Pick and mix variables from different datasets
- View data
- Chart data
- Thematically Map data
- Time series
- Create your own area

Click here for customised tables, charts and maps
NeSS allows quick collation of data from the same dataset for different years...

Time Series for Income Support Claimants, Aged Under 20^ (Persons, Count)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Southampton</td>
<td>460</td>
<td>420</td>
<td>385</td>
<td>375</td>
<td>345</td>
<td>390</td>
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<td>Pershormth</td>
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<tr>
<td>Gosport</td>
<td>90</td>
<td>110</td>
<td>110</td>
<td>395</td>
<td>310</td>
<td>3105</td>
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<tr>
<td>Non-Metropolitan District</td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fareham</td>
<td>75</td>
<td>75</td>
<td>70</td>
<td>355</td>
<td>345</td>
<td>345</td>
</tr>
<tr>
<td>Non-Metropolitan District</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Manchester</td>
<td>70</td>
<td>65</td>
<td>50</td>
<td>350</td>
<td>345</td>
<td>340</td>
</tr>
<tr>
<td>Non-Metropolitan District</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Havant</td>
<td>210</td>
<td>210</td>
<td>195</td>
<td>3165</td>
<td>3140</td>
<td>3170</td>
</tr>
</tbody>
</table>

**Caution:** using statistics from different sets of data means that you may not be comparing like with like. Click by the topic and area names to check descriptions.

**Caution:** If you cut and paste the columns or rows in this table, you may invalidate the percentage change or rebase calculations, or affect the ordering of the time series data.

**Caution:** Some footnotes may refer to data that is not displayed in the table.

1. From the dataset: Income Support Claimants
2. Part of the 2003 administrative hierarchy
3. As this dataset is linked to 2003 geographic boundaries, this represents a new time series for Income Support (IS) when compared to the 1998, 1999 and 2000 IS data also included on the Neighbourhood Statistics website. Further details are given in the geographic referencing section of the metadata. Please note that Local Authority and Ward Figures have been rounded, therefore the total number of claimants may not equal the sum of the numbers shown and any counts which are shown as zero may not be zero. National and Government Office Region totals have not been rounded, as the geographies are sufficiently large. Annual figures not to cross 30% of confidentiality threshold for Work and Pensions customers. Further details are given in the disclosure control section of the metadata.
... which can then be displayed as time series plots.
Create ‘ONS Titchfield car park’ geography by adding together output areas.
We can now output statistics on the ONS Titchfield car park geography.

<table>
<thead>
<tr>
<th>ONS Titchfield car park?</th>
<th>All Households</th>
<th>Households with no cars or vans</th>
<th>Households with one car or van</th>
<th>Households with two cars or vans</th>
<th>Households with three cars or vans</th>
<th>Households with four or more cars or vans</th>
</tr>
</thead>
<tbody>
<tr>
<td>constructed</td>
<td>680</td>
<td>58</td>
<td>279</td>
<td>295</td>
<td>41</td>
<td>7</td>
</tr>
</tbody>
</table>

**Caution:** using statistics from different sets of data means that you may not be comparing like with like. Click by the topic and area names to check descriptions.

**Caution:** some footnotes may refer to data that is not displayed in the table.

1. National Statistics
2. ONS Titchfield car park comprises: 24UEGD0009, 24UE3E0015, 24UEGD0010, 24UE3E0001, 24UE3E0016.
Example of Use of NeSS and ID04 data: NEW URBAN & RURAL DEFINITION

Broad structure of multi-level classification of areas

- Settlement
  - Urban
    - Sparse
    - Less sparse
    - Town and fringe
  - Rural
    - Sparse
    - Less sparse
    - Town and fringe
    - Village
    - Dispersed
New Rural/Urban definition: Census Output Area & ward level
Using IMD Income domain, Census education data, and within Town & Fringe Rural Areas: East Midlands

East Midlands Educational Attainment in Town and Fringe SOA areas

- No Qualifications
- Level 4/5
Similar analysis for the South East

South East Educational Attainment in Town and Fringe SOA areas

Increased Income Deprivation ->

Proportion of population

- No Qual
- Level 4/5

Ist Band 2nd Band 3rd Band 4th Band 5th Band 6th Band 7th Band 8th Band 9th Band 10th Band
Clear link between education and income at area level, but also highlights differences between regions.

Differences in educational attainment in the EM and SE

Proportion of population vs. Increased Income Deprivation.
Parallel developments: visualisation

Examples using SVG technology (Scalable Vector Graphics):

- Business register – map and chart
- Urban Audit
- Population pyramids
- Deprivation Atlas
- StatsViewer (generic tool)
Useful Links.

• National Statistics website: http://www.statistics.gov.uk/
• NeSS homepage: http://neighbourhood.statistics.gov.uk/
• Area Classifications: http://www.statistics.gov.uk/CCI/article.asp?ID=1559&Pos=6&ColRank=1&Rank=224
• 2001 Census: http://www.statistics.gov.uk/census
• Indices of Multiple Deprivation: http://www.communities.gov.uk/index.asp?id=1128440