Welsh Government

Consultation Webinar Welsh Index of Multiple Deprivation 2014

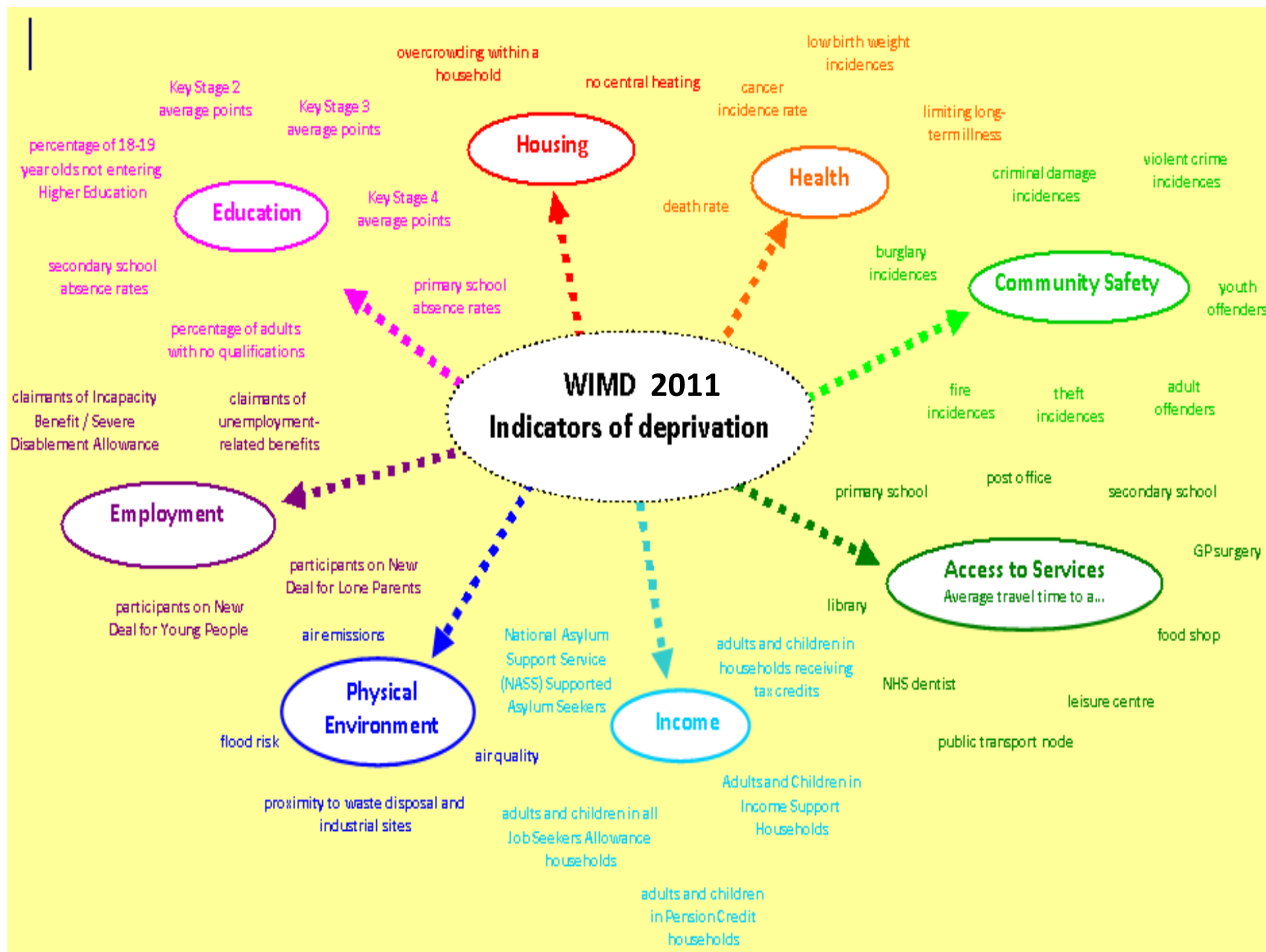10 February 2014

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Outline

- What is WIMD?
- Timetable
- Progress to date
- Indicator Proposals
- Other indexes
- Next steps
- Questions

What is WIMD?

- WIMD is the Welsh Government's official measure of relative multiple deprivation for small areas in Wales.
- It is designed to identify those small areas where there are the highest concentrations of several types of deprivation.
- WIMD ranks LSOAs (Lower Super Output Areas – average population around 1600) according to their relative deprivation levels across 8 domains to produce an overall index.
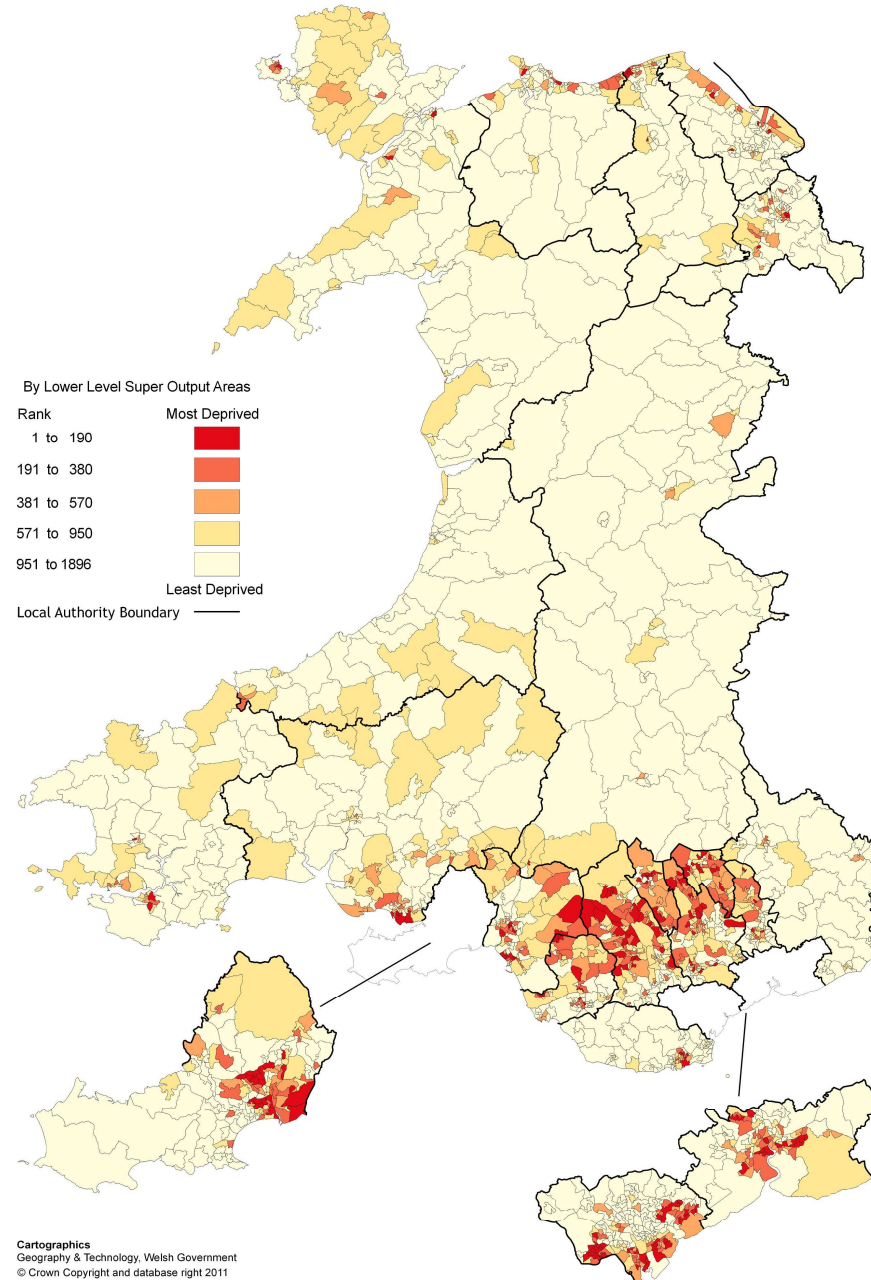- WIMD 2011 most recent index (though a straight update of the 2008 WIMD)

Background

- WIMD 2000 – Produced by Oxford University. Provided an overall index of deprivation in Wales at Electoral Division levels.

- WIMD 2005 – Produced by the Local Government Data Unit. Revised and updated the 2000 index to make one that is more transparent and easier to understand. This index used LSOAs rather than Electoral Divisions and now included domains in addition to an overall index.

- WIMD 2008 – Produced by the Welsh Assembly Government's Statistical Directorate and the Local Government Data Unit. Following consultations, methodological changes were implemented and this version replaced the previous WIMD.

- WIMD 2011 – Produced by the Welsh Government. This version of WIMD updated the 2008 index without imposing methodological changes (except where data limitations made it unavoidable).

Mind map: WIMD 2011 Indicators of deprivation

Central node: **WIMD 2011 Indicators of deprivation**

Education
- Key Stage 2 average points
- Key Stage 3 average points
- Key Stage 4 average points
- percentage of 18-19 year olds not entering Higher Education
- secondary school absence rates
- primary school absence rates
- percentage of adults with no qualifications

Housing
- overcrowding within a household
- no central heating

Health
- low birth weight incidences
- cancer incidence rate
- limiting long-term illness
- death rate

Community Safety
- criminal damage incidences
- violent crime incidences
- burglary incidences
- youth offenders
- fire incidences
- theft incidences
- adult offenders

Employment
- claimants of Incapacity Benefit / Severe Disablement Allowance
- claimants of unemployment-related benefits
- participants on New Deal for Lone Parents
- participants on New Deal for Young People

Physical Environment
- air emissions
- flood risk
- air quality
- proximity to waste disposal and industrial sites

Income
- National Asylum Support Service (NASS) Supported Asylum Seekers
- adults and children in households receiving tax credits
- Adults and Children in Income Support Households
- adults and children in all Job Seekers Allowance households
- adults and children in Pension Credit households

Access to Services
Average travel time to a...
- primary school
- post office
- secondary school
- GP surgery
- library
- NHS dentist
- food shop
- leisure centre
- public transport node

Welsh Index of Multiple Deprivation

By Lower Level Super Output Areas

Rank
Most Deprived

1 to 190

191 to 380

381 to 570

571 to 950

951 to 1896

Least Deprived

Local Authority Boundary

Defining Multiple Deprivation in terms of WIMD

WIMD is a measure of multiple *deprivation* that is both an area-based measure and a measure of relative deprivation.

Deprivation is the lack of access to opportunities and resources which we might expect in our society. Eight domains (types) of deprivation were included in WIMD 2011: employment, income, education, health, community safety, geographical access to services, housing and physical environment. These domains may cover both material and social aspects of deprivation. Material deprivation is having insufficient physical resources - food, shelter, and clothing – necessary to sustain a certain standard of life. Social deprivation refers to the ability of an individual to participate in the normal social life of the community.

Defining Multiple Deprivation in terms of WIMD

WIMD is a measure of **multiple deprivation** that is both an area-based measure and a measure of relative deprivation.

Multiple Deprivation refers to more than one type of deprivation. An area is multiply deprived if, for more than one of these domains, the area has a concentration of people experiencing that type of deprivation. Generally speaking, the greater the number of domains where there are high concentrations of deprivation then the greater the overall deprivation in an area. This does not necessarily mean the *same* group of people suffer multiple types of deprivation in the area, although we would expect there to be significant overlap.

Defining Multiple Deprivation in terms of WIMD

WIMD is a measure of multiple deprivation that is both an **area-based measure** and a measure of relative deprivation.

Area-based measure: WIMD is calculated for all lower layer super output areas (LSOAs) in Wales. Following the 2011 census, 1909 LSOAs were identified in Wales and they have an average population of 1600 people. WIMD is based on indicators that consider the aggregate characteristics of the people living in the area as well as in some cases the characteristics of the area itself (for example the physical environment domain).

Defining Multiple Deprivation in terms of WIMD

WIMD is a measure of multiple deprivation that is both an area-based measure and a measure of *relative deprivation*.

Relative Measure: The Index provides a way of identifying areas in the order of least to most deprived. It does not provide a measure of the level of deprivation in an area but rather whether an area is more or less deprived relative to all other areas in Wales; so we can know which areas are more (or less) deprived than others, but not by how much. The reason for taking such an approach is that this allows the different domains to be combined together.

The box plot below shows the spread of Index ranks for each local authority in Wales. The blue boxes contain half the total number of LSOAs in each local authority, centred on the median (middle) rank for each local authority and the 'whiskers' show the full range of ranks in that local authority. Deprivation increases with decreasing rank (that is, towards the bottom of the plot).
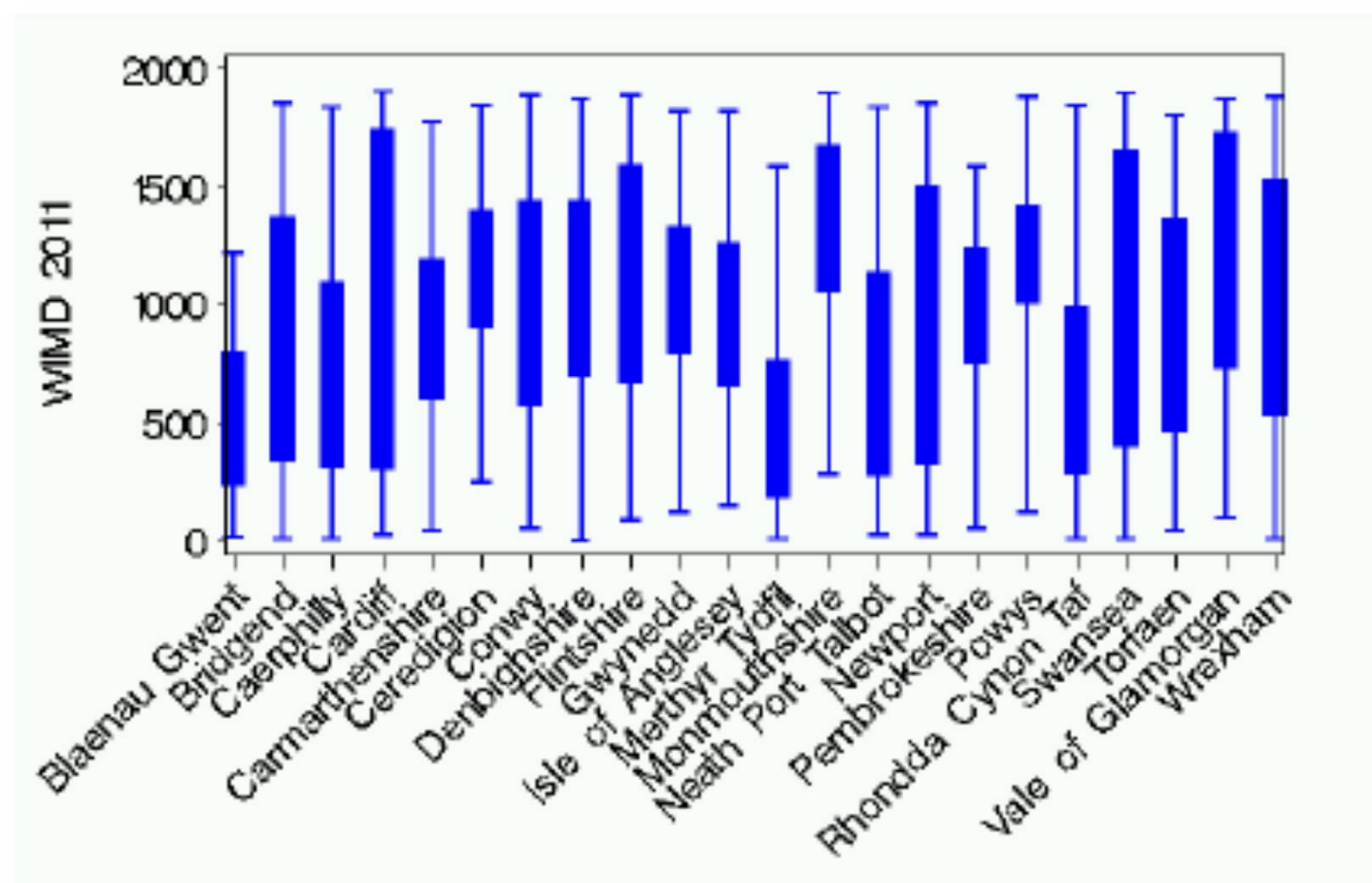
How WIMD is used

- ***Welsh Government***
  - Development and monitoring of the Communities First programme
  - Calculation of school families
  - Used in identifying areas in which to put Flying Start services
  - Used extensively to measure health inequalities
  - Used by Wales European Funding Office to assess project applications

- ***Local Government***
  - Housing renewal initiatives
  - Local/Area profiles
  - Funding bids
  - Needs assessments
  - WLGA and health improvement work

Limitations of WIMD

- WIMD is not the only way to measure deprivation – it's been developed for a particular purpose (to measure concentrations at a small area level)

- There are individuals in deprived areas that would not be considered deprived….. There are individuals that would be considered deprived in the least deprived areas.

- WIMD doesn't give a measure of the amount of deprivation in an area …… but analysis of individual indicators within WIMD does allow comparison and analysis over time.

- WIMD is a relative index, so can't compare over time.

- A lack of deprivation is not the same as affluence

WIMD 2014 Timetable

Pre phase 1 – The conceptual review (finalised in March 2013)

Phase 1 – Review Domains and Indicators (May 2013 – October 2013)

- Domain groups review domains and indicators
- Input from advisory group
- Steering Group agree content of consultation (October 2013)

Phase 2 – Consultation (November 2013 to February 2014)

- Consultation on domain and indicators

WIMD 2014 Timetable

Phase 3 – Response to Consultation (Spring 2014)

- Domain groups reconvene (if need be)
- Publish response

Phase 4 – Data collection and construction of WIMD 2014

      (Spring 2014 to Autumn 2014)

Phase 5 – Publish WIMD 2014 (late 2014)

      - Publish Child Index (early 2015)

Consultation

- Consultation published on 28 November 2013, and will close on 27 February 2014

- Aim of consultation is to seek user views on proposals for WIMD 2014 indicators.

- Consultation document provides outline of proposed indicators. Also discusses rejected indicators and work for the future.

- It also refers to our plans for the Child Index.

Development of Proposals

- Seven domain groups (WG analytical and policy staff, local authorities, other public body analysts eg NRW, PHW) and academics.

- Domain groups asked to:
  - Review indicators from WIMD 2011
  - Consider new indicators (reviewing outstanding issues from previous WIMDs)
  - Discuss and agree proposed indicators - ensuring they meet Criteria (section 4.2) wherever possible

  Expert advice from external advisory board. Decisions taken by steering group.

Questions?

Income

Purpose: Focus on proportion of people with income below a defined level.

Proposed Indicator

Note that pre Universal Credits data will be available for WIMD 2014.

A single composite indicator calculated from following three elements:

1. Percentage in receipt of income related benefits **
2. Dependent child receiving tax credits with income less than 60 per cent of the Wales median
3. NASS-supported Asylum Seekers

(count of unique individuals)

Proposed Indicator

** Percentage in receipt of income related benefits…

Combined count of yearly average of:

- Income Support claimants
- Income Based Jobseekers allowance claimants
- Pension credit claimants
- Income based employment and support allowance
- + number of dependents on above claimants

- Divided by total population

Other Indicators Considered

- Small are income estimates (no suitable source)

- Persistent benefit claimants (contextual information)

Changes since WIMD 2011

- Roll-out of Universal Credits will mean significant changes to future WIMDs. Proposals for this domain based on principle of 'minimum change'

- Changes to welfare system mean that eligibility thresholds and criteria for some benefits have/are about to change. Indicator may not be strictly comparable with earlier years.

- MINOR CHANGE – remove contribution-based JSA from list of included benefits (not means tested)

Questions?

Employment

Purpose: To capture lack of employment – this covers involuntary exclusion of the working age population from work, including those people who cannot work due to ill-health or who are unemployed but actively seeking work.

Proposed Indicator

Note that pre Universal Credits data will be available for WIMD 2014.

Proportion of people on employment related benefits:

Calculated from a count of unique individuals entitled to:

1. Incapacity benefit
2. Jobseeker's allowance
3. Employment and support allowance

Expressed as percentage of total population

Other Indicators Considered

- Persistent benefit claimants (contextual information)

Changes since WIMD 2011

- Roll-out of Universal Credits will mean significant changes to future WIMDs. Proposals for this domain based on principle of 'minimum change'

- Changes to welfare system mean that eligibility thresholds and criteria for some benefits have/are about to change. Indicator may not be strictly comparable with earlier years.

- MINOR CHANGE – remove New Deal participants (replaced by Work Programme which requires participants to be either JSA or ESA claimant)

Questions?

Health

Purpose: To measure lack of good health.

Proposed Indicators

- Cancer incidence

- Long Term Limiting Illness

- All Cause Death Rate

- Low Birth Weight
  - First three indicators are age-sex standardised
  - All are combined using factor analysis (to determine how much weighting each indicator is given)

And possibly…

- Prevalence of diagnosed chronic diseases

- Unpaid carers

Other Indicators Considered

- Prescribing data (monitor for future)
- Emergency Admissions (not appropriate)
- Child Obesity (monitor for future)
- Healthy Life Expectancy / Avoidable Mortality (not possible at small area level)
- Maternity Indicators (monitor for future)

Changes since WIMD 2011

- CHANGE Census question on long term limiting illness – now asks if limited "a little" or "a lot"

- ADD/DROP? If including prevalence of diagnosed chronic disease, need to analyse data and reconsider inclusion of cancer incidence, long term limiting illness, and death rate

- ADD? Possible addition of unpaid carers

Questions?

Education

Purpose: To capture the extent of deprivation relating to education, training and skills. It is designed to reflect educational disadvantage within an area in terms of lack of qualifications and skills. The proposed indicators capture low attainment among children and young people and the lack of qualifications in adults.

Proposed Indicators

- Key Stage 2 Average Point Score
- Key Stage 4 Capped Point Score
- Key Stage 4 Level 2 inclusive (5A*-C incl Welsh/English and maths)
- Repeat absenteeism rate
- Proportion of people not entering HE aged 18-19
- Number of adults aged 25-64 with no qualifications

- Combined using factor analysis (to determine how much weighting each indicator is given)

Other Indicators Considered

- Key Stage 3 Average Points Score (dropped)
- Early years indicators (monitor for future)
- National Tests (monitor for future)
- Young people not in education, employment or training (not possible at small area level)
- Adults with level 4+ qualifications (not appropriate)

Changes since WIMD 2011

- DROP Key Stage 3 Average Points Score

- CHANGE Key Stage 4 indicator (replace Wider points score with capped points score and L2 inclusive)

- CHANGE Absenteeism indicator (from overall absenteeism to repeat absenteeism)

Questions?

Access to Services

Purpose: To capture deprivation as a result of a household's inability to access a range of services considered necessary for day-to-day living. This covers both material derivation and social aspects of deprivation.

Proposed Methodology

Propose to incorporate private as well as public transport

- Calculate average travel times for public and private transport
- Use a weighted average to combine the two, based on Census data for LSOAs (number of cars per household and number of adults aged 17+)
- Run factor analysis on the weighted indicators

Proposed calculation methods (average travel times)

- Public transport - Mapumental service (MySociety)
- Private transport – Routefinder/OS Integrated Transport Network OR ArcGIS Online services

Proposed Indicators

- Food shops
- GP Surgeries
- Primary schools
- Secondary schools
- Post office
- Public library
- Leisure centre
- Pharmacies (new)
- Petrol stations (new)

Other Indicators Considered

- NHS dentist (dropped)
- Transport Nodes (dropped)
- Access to digital services (monitor for future)
- Accident and Emergency hospitals (not appropriate)
- Cash point machines (not appropriate)
- Child care facilities (not appropriate)
- Employment centres (not available/appropriate)
- Legal and financial services (not appropriate)

Changes since WIMD 2011

ADD
- Pharmacies
- Petrol stations

DROP
- NHS dentist
- Transport nodes

CHANGE
- Schools restricted to households with school-children (using PLASC)

Questions?

Community Safety

Purpose: To consider deprivation relating to living in a safe community. It covers actual experience of crime and fire, as well as perceptions of safety whilst out and about in the local area.

Proposed Indicators

- Police recorded burglary
- Police recorded criminal damage
- Police recorded theft
- Police recorded violent crime
- Fire incidence

And possibly…

- Road traffic accidents

And either…

Preferred option:

- Anti social behaviour

Alternative option:

- Percentage of youth offenders
- Percentage of adult offenders

Other Indicators Considered

- Drug offences (not appropriate)
- Sexual offences (reported data not sufficient)

Changes since WIMD 2011

- CHANGE Fire incidence, including all fires rather than just primary and secondary derelict vehicle fires
- ADD/DROP? Potential inclusion of anti social behaviour instead of adult and youth offender indicators
- ADD? Possible addition of road traffic accidents

Questions?

Physical Environment

Purpose: To measure factors in the local area that may impact on the wellbeing or quality of those living in an area

Proposed Indicators

- Proportion of Households at Risk of Flooding

- Air Concentrations
- Air Emissions

- Proximity to waste disposal and industrial sites

- Grouped into three equally weighted sub-domains, with air indicators equally weighted within sub-domain

Other Indicators Considered

- Proximity to Natural Green Space (monitor for future)
- Noise pollution (incomplete data source)
- Fly tipping (lack of appropriate data source)
- Surface water flood risk (monitor for future)
- Sewer flood risk (not suitable)

Changes since WIMD 2011

- POTENTIAL MINOR CHANGE – Proportion of households at risk of flooding (change in risk categories)

- MINOR TECHNICAL CHANGES – Air Quality Indicators (Annex G)

Questions?

Housing

Purpose of domain

Conceptually….

To capture deprivation through lack of adequate housing, in terms of physical condition, living conditions and availability

But…

Lack of appropriate data means that it is not possible to fully measure housing deprivation according to above definition.

Proposed Indicator

- Proportion of people living in overcrowded households (bedroom occupancy definition)

- Potentially: Standard Assessment Procedure (SAP) ratings from Energy Performance Certificate (EPC) data. Dependent on wider WG work to assess suitability of data (coverage, consistency, up-to-date etc)

Other Indicators Considered

- Lack of central heating (no longer considered appropriate)
- Homelessness (not available for LSOAs)
- Housing affordability (not available for LSOAs)
- Fuel poverty (not available for LSOAs, close links with income domain, energy efficiency more appropriate?)
- Eviction/Repossessions (not available)
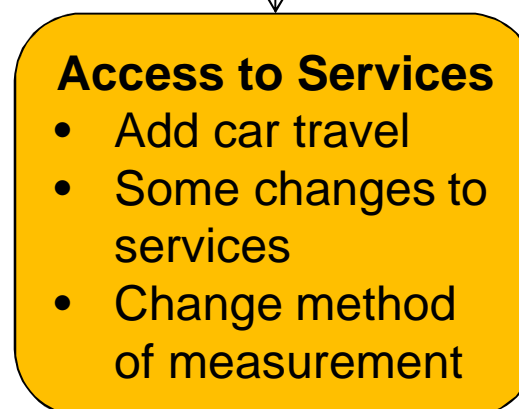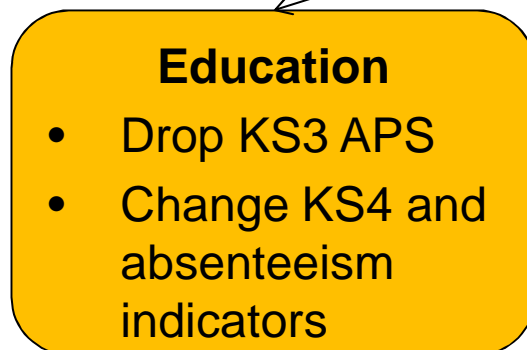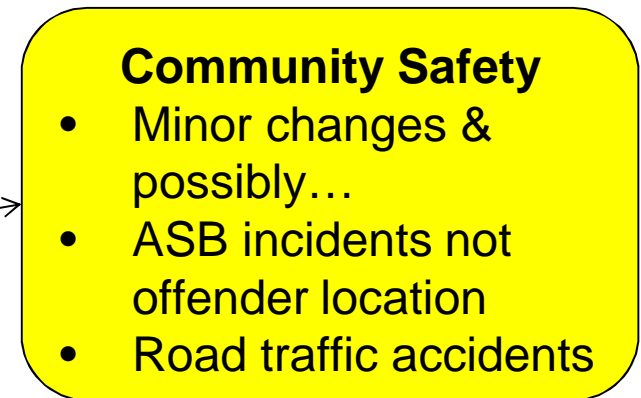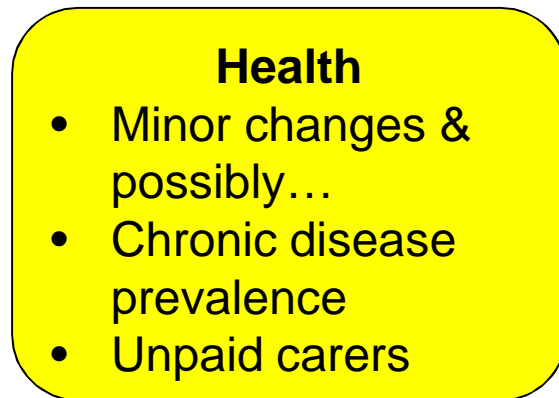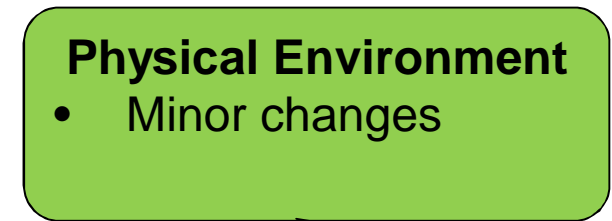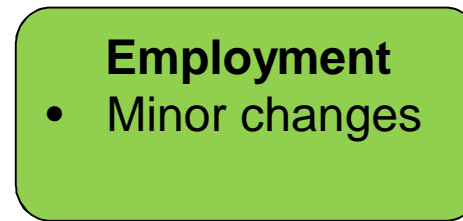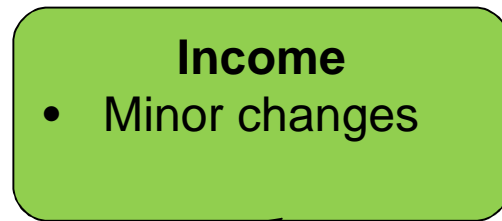- Housing quality (lack of data)

Changes since WIMD 2011

- DROP– Lack of central heating (no longer considered suitable – homes may have central heating but may not be able to afford to run it. Its performance may be inadequate and inefficient)

- CHANGE – Overcrowding (move from room occupancy definition to bedroom occupancy definition as used for other surveys).

Questions?

WIMD 2014 PROPOSALS

Income
- Minor changes

Employment
- Minor changes

Physical Environment
- Minor changes

Health
- Minor changes & possibly…
- Chronic disease prevalence
- Unpaid carers

Community Safety
- Minor changes & possibly…
- ASB incidents not offender location
- Road traffic accidents

Education
- Drop KS3 APS
- Change KS4 and absenteeism indicators

Access to Services
- Add car travel
- Some changes to services
- Change method of measurement

Housing
- Drop central heating
- Change to bedroom overcrowding

Child Index

- Considering the long-term future of the Child Index. It is derived from indicators already present in the main WIMD -not necessarily the best available indicators of child deprivation for some domains (e.g. health). To develop the child index as more of a stand alone measure with appropriate indicators and domains would require considerable extra resources.

- Propose to continue to publish the Child Index in its current format – in early 2015 as a follow on from WIMD 2014. We will also then consider the feasibility of providing an age breakdown in the annual publication of WIMD indicator data on StatsWales as a potential alternative approach. Advances in data linkage also offer the potential for further analyses of data on children in future.

- Would welcome views on this, and whether/how Child Index is used

Rural Deprivation

- In earlier consultations, some respondents noted the relative weakness of WIMD in locating rural deprivation, suggesting either the construction of a rural index or more rural-specific indicators.

- We recognise that rural deprivation is an important issue, but construction of a Rural Index will not form part of the WIMD work plan.

- In rural areas, deprived people tend to be more geographically dispersed than in urban areas (pockets of deprivation tend to be on a considerably smaller scale than even the small-scale geography at which WIMD is produced, and so their contribution to averages in these areas tends to be submerged by larger-scale, less-deprived populations).

- Although deprivation exists in rural areas, WIMD is not a suitable tool for locating it (even if more rural-specific indicators were to be used) as it's scattered.

Next steps

- Have your say!

- Consultation closes 27 February 2014
- Publish response Spring 2014
- Publish WIMD – late 2014!

Questions?