Assessing the reliability of recording ethnic group at death registration in Scotland using a cross-check with the 2011 Census

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Background

• Very few countries record ethnic group of deceased – New Zealand and USA
• Potential source of valuable information on causes of death
• After consultation, Scotland began to request ethnic group of deceased at death registration in 2012
• Entirely voluntary
Background

• 19 ethnic groups, same as 2011 Scotland Census
• 2012 deaths: 96.0% White, 0.6% non-White, 3.0% “not willing to provide”, 0.4% “unable to provide”
• 2011 Census – 4% non-White
• Are results reliable?
• NRS asked to assess accuracy by comparing with 2011 Census records
Matching 2012-2014 Death and 2011 Census Records

• used first name, surname, sex, date of birth and postcode (or parts thereof)
• if not exact match, “threshold” score for likely match
• some Death Registration Records (DR) did not match Census Record (CR)
  – e.g. person not in Scotland at time of 2011 Census
Overall results

• 163,876 deaths in 2012-2014.  95.9% had ethnicity

• after linkage 85.9% had ethnicity in both records

• of which 93.8% had same ethnicity in both records, and 99.7% same at White/non-White level
“Most reliable” cases

• High quality match and death registered by partner, child, sibling or parent of deceased ...

• Of such cases with ethnicity from both records:
  – 94.7% had same ethnicity in both records, and 99.8% same at White/non-White level
  – overall % agreement so high because 98.6% of those with White Scottish in DR had same in CR

• lower % agreement for other ethnicities
  – only 64% of those with White Other British in DR had same in CR
  – only 78% of those with Indian in DR had same in CR
“Most reliable” cases with differences between DR and CR

• 5,163:
  – 2,859 had White Other British in DR and White Scottish in CR
  – 660 had White Scottish in DR and White Other British in CR

• for many such cases, ethnicity in DR seems to have been based on the deceased’s country of birth
DRs with no ethnicity information

- 5,461 were matched to CR with ethnicity information
- only 78% had White Scottish in CR – vs. 91% of DRs which had ethnicity
- most other ethnicities over-represented among cases with no DR ethnicity
  - White Other British 13.8% in CR only  v  6.6% in DRs
  - White Irish 2.3% v 1.1%
  - Pakistani  0.8% vs. 0.2%;
  - Indian 0.5% vs. 0.1%;
Conclusions

• Requesting ethnicity at death registration widely acceptable in Scotland

• high overall % agreement with Census due to very high % agreement for White Scottish

• lower % agreement for most other ethnicities

• so data not at present suitable for calculating reliable mortality rates by ethnicity

• NRS aims to improve future data quality
Any questions?

- Further information available from NRS website: