

## Population and Migration Statistics (PAMS) Committee Scotland

Minutes of the Population and Migration Statistics (PAMS) Committee (Scotland):  
19<sup>th</sup> November, 2019

### Present

Alan Ferrier  
Calum Purdie  
Cara Connachan  
Clare Leadbetter  
David Redpath  
Denise Patrick  
Duncan Gray  
Elizabeth Fraser  
Emma Fitzpatrick  
Esta Clark  
Esther Roughsedge  
Fiona Tweedie  
Graham Galloway  
Isabelle Minskip  
James Reid  
Kirsty Yule  
Mike Atkinson  
Paul McNamara  
Peadar Morgan  
Rucha Amin  
Ryan Scott (**Chair**)  
Sandy Taylor  
Sara Townsend-Cartwright  
Sarah Letsinger (**Minutes**)  
Sara Nodwell  
Steve Morley  
Steve Smallwood  
Tricia Cooper

### Organisation

NRS  
NHS ISD  
Improvement Service  
NRS  
NRS  
NRS  
Shelter  
Scottish Government  
East Dunbartonshire Council  
NRS  
NRS  
Church of Scotland  
NRS  
NRS  
Edinburgh University  
NRS  
Highland Council  
Stirling Council  
Bòrd na Gàidhlig  
Scottish Government  
NRS  
NRS  
Scottish Water  
NRS  
Scottish Water  
North Ayrshire Council  
ONS (via phone link)  
NRS

## 1 Welcome and introductions

1.1 Everybody present introduced themselves around the table.

1.2 The minutes of the previous meetings (PAMS (19) 10) were approved without comment

### 1.3 Action points from previous meetings (PAMS (19) 10)

**Action point 2019.1 – Ryan Scott to forward details of software used by NRS for public facing infographics on to Xander Flatt.** Closed – Esther Roughsedge emailed with details.

**Action point 2019.2 – NRS to share infographics and data visualisation video guide with PAMS members when this is available.** Open – video guide has not been published yet.

**Action point 2019.3 - Ryan Scott to follow up with Emily Knipe about ONS social media strategy.** Closed – Ryan contacted Emily about social media strategy and benchmarking.

**Action point 2019.4 – Sandy Taylor to follow up with Mike Atkinson on DSA progress to determine suitability of data once this has been acquired.** Open – Work is progressing, but DSA still to be finalised.

**Action point 2019.5 - Anneli Lyon to circulate a summary to PAMS committee members and to Local Authority representatives for discussion and feedback on the 2021 sex question.** Closed – Anneli provided summary and request for feedback to be circulated with the minutes to PAMS members.

**Action point 2019.6 - Heather Smith to forward contact details for the Highlands & Islands Enterprise equalities manager on to Anneli Lyon.** Open - Contact details still to be received.

**Action point 2019.7 - Denise Patrick to keep PAMS updated on plans for future releases of settlements and localities.** Closed - timetable for the next release still to be agreed. Will keep PAMS members updated via future meetings, and the month of publication will be pre-announced on the NRS website once known.

**Action point 2019.8 – Martin Macfie to discuss visualisation training with Ryan Scott.** Closed - statistics.gov.scot team presenting at PAMS meeting

**Action point 2019.9 - Alan Ferrier to request an update from the Scottish Government team working on the SIMD for discussion at the next PAMS committee meeting.** Closed – SIMD team presenting at PAMS meeting.

## **2 Branch Updates**

### **2.1 Population and Migration Statistics (PAMS (19) 12)**

Denise Patrick summarised ongoing work within the population and migration statistics branch. Work on the 2018-based sub-national population projections has begun. Based on feedback received from the last publication, the 2018-based projections will focus on projections over a 10 year period. Denise encouraged members to get in touch if they have any feedback on things they would like to see included in the 2018-based projections.

Denise spoke about recent POPGROUP training which took place a few months prior and taught individuals how to create their own small area projections. There is ongoing work to develop and finalise written guidance and instructional videos on how to produce these projections using POPGROUP and will be available on the NRS website. Denise said that the Improvement Service is working on producing a standard set of sub-council area population projections.

Denise handed over to Cara Connachan from the Improvement Service, who provided a brief update on the work planned to produce these standard projections. Cara said that the standard projections will be produced for multimember wards. The Improvement Service recognises that it won't meet all user needs, but a previous survey carried out by NRS

indicated that these would be the most popular geography for a standard set of projections. Cara said the Improvement Service welcomes suggestions for future work and feedback on what people will be using these projections for. The Improvement Service will create a caveats and cautions booklet to go alongside these standard projections.

Denise spoke about the new Ministerial Population Task Force which has been established to consider Scotland's future population challenges and develop solutions to address these. NRS are providing analytical support to the the population programme and are happy to visit organisations and help promote the range of demographic evidence available to understand how local populations are changing. Denise encouraged PAMS members to promote the population programme across their organisations and consider collective action that might be feasible.

2.1.1 Emma Fitzpatrick asked about the scope for the Improvement Service to create small area projections for geographies besides multimember wards. Cara said that the Improvement Service is planning to start with a standard set of projections for multimember wards, but that they are open to customised geographies in the future.

2.1.2 Steve Morley commented that feedback from the morning session was divided and half of the councils wanted standard projections for multimember wards, whilst the others preferred other geographies. Mike Atkinson added that housing market areas are really useful and that multimember ward projections won't be useful for all local authorities. Steve agreed that many councils wouldn't use this. Cara will take this on board, but acknowledged that it can be difficult to find an area that meets everyone needs.

**Action point 2019.10 If PAMS members have a strong preference on the geography which the Improvement Service creates standard projections for, please get in touch.**

## **2.2 Statistics Engagement and Promotion (PAMS (19) 13)**

Esther Roughsedge said that the statistics engagement and promotion branch would like to better understand how their outputs can help PAMS members, particularly on using webtools. There is a plan to start a round of user research next year, and Esther asked PAMS members to get in touch if they would like to take part. Esther said that arrangements could be made to conduct this research over the phone or via e-mail if it was not feasible to do in-person due to location constraints.

Esther also spoke about recent talks they have given on how Scotland's population is changing and the implications of this. Esther said that they would be happy to go to councils and do similar talks which can be an overview on Scotland's population or tailored to the audience or to specific geographies. PAMS members should get in touch if they would like to arrange this.

Esther said that they are continuing to develop infographics and use twitter to promote statistics, more detail of this can be found in PAMS(19) 13. She asked if PAMS members had any feedback on these.

2.2.1 Emma Fitzpatrick said some of the tweets produced by NRS have been very useful.

## **2.3 Household Statistics (PAMS (19) 14)**

Sandy Taylor spoke about recent household statistics work. The mid-2018 estimates of households and dwellings in Scotland were published on 18 June. A data sharing agreement to enable the analysis and publication of data from the Scottish Assessors on characteristics of dwellings is still to be finalised. In the interim, there are plans to release supplementary data on the number of dwellings by council tax band at council and data zone level, provisionally on the 28<sup>th</sup> November.

Small area (2011 data zone) household estimates were released on 18 June, with data currently available for years 2014-2018. There is ongoing work to compile a back series of dwellings estimates for years prior to 2014. There has been a request for small area data on unoccupied exemptions and long-term empty properties, and it has been proposed to make this available for the 2018 estimates (and also for the 2014-2017 estimates). Sandy asked for comments from PAMS members on the proposal to release small area statistics on unoccupied exemptions and long-term empty properties.

Sandy also spoke about upcoming work. The last household projections were produced in 2018 and they are now working on producing the 2018-based household projections which are planned to be published in July 2020. The Household Analysis Review Group met earlier in the year to consider a number of issues, including trends in household type; proposed changes to the methodology used to create household projections for Scotland; and the availability of small area data on households.

The next collection of electoral register statistics is due to take place in December. Sandy noted they are currently in discussion with the Electoral Registration Offices about the impact of the General Election on 12 December, which may result in a staggered data collection. Publication of the summary electoral register statistics is currently scheduled for March, but this may need to be pushed back to April.

- 2.3.1 Mike Atkinson said that the feedback from the morning session was that PAMS members were happy to see the release of small area statistics on unoccupied exemptions and long-term empty properties.

## **2.4 Vital Events (PAMS (19) 15)**

Julie Ramsay was unable to attend, so Alan Ferrier updated the group. The next publication will be "Life Expectancy for Scottish Areas," which will be available on 11 December. This will include subnational life expectancy and healthy life expectancy.

The Vital Events branch are also working to produce estimates on the deaths of homeless people using the same methodology as ONS. The first figures will provisionally be published early next year. This will be the first time that data has been produced and will be experimental.

- 2.4.1 Ryan Scott thanked everyone involved in producing data on homeless deaths.

## **3 Demonstration**

### **3.1 Potential benefits of accessing data through API's and other Stastics.gov.scot features (PAMS (19) Presentation 01)**

Rucha Amin presented to the group about automating access to open data.

- Statistics.gov.scot is an open portal which contains 280 official statistics data sets. It is possible to browse datasets by theme, search for data, filter data sets to create custom spreadsheets and create automatic interactive mapping and charts. It also allows API access to data.
- The number of datasets available through statistics.gov.scot has steadily been increasing over the past few years and there is ongoing work to update these.
- The availability of this data is important as it is used by a variety of different groups including topic area researchers, local area analysts and data analysts.
- Besides allowing humans to browse and download data sets, the statistics.gov.scot website allows machines to download datasets automatically. This data can be used to power apps and dashboards with the most up to date version.
- API access to open data uses SPARQL endpoint. This is flexible and powerful, but can also be complex and hard to learn.
- A “opendatascot” R package has been created to allow easier API access to open data. It is available on github and only requires a few lines of code to fetch data. It does require knowledge of R.

Rucha asked if there is an appetite within organisations for making these kind of data products. She also asked about barriers to creating them and what skills organisations already have. Rucha said that they could provide some training to use these products for people who already know how to use R, but also wanted to know other ways in which they can help.

- 3.1.1 Paul McNamara raised that many councils don't have R skills, but some teams are familiar with Power BI. Ryan Scott suggested that local authorities carry out intelligence gathering within their teams to determine the level of skills present in order to best identify the need for this training. There was a discussion about how R is increasingly being used and there are many resources available to help people learn how to use it. Paul McNamara said Stirling Council had Masters Students involved in work to create dashboards; they also taught current staff how to use R in order to maintain these.

**Action point 2019.11 Rucha Amin to circulate information to PAMS members on getting starting with R.**

## **4 Scotland's Census 2021**

### **4.1 Addresses for Census (PAMS (19) Presentation 02)**

Tricia Couper spoke about accurate addressing as the foundation of a complete census.

- High quality addresses are required to support the posting out of the census and census operations.
- A high quality address list is needed to count the whole population. Managed residential addresses such as communal establishments also need to be pre-identified.
- The royal mail addresses need to be matched to ordanance survey and have a high quality grid reference.

- Building an address register can be challenging as addresses can be difficult to identify (for example inconsistent flat numbering) and frequently change. The identification of communal establishments is really important, but pose a particular challenge.
- Currently addresses are being desk checked, but in the future, field checks may need to take place. This can also be challenging as the checker will not always be able to properly identify addresses from the street and would have to knock on doors. For example, flats numbers may be identifiable from outside, but not their location within the building.
- The address register is created in an in-house apps process called AddressBasePremium where supplementary information is added from other data sources to create NRS' Scottish Address Directory. A snapshot of this directory is taken as late as possible to ensure that the most up to-date data is used to create the census address register.
- Quality assurance of the census address register takes place through a number of different processes including investigation of provisional records, independent matching of royal mail postcodes to One Scotland Gazetteer and investigating parent-child relationships (such as rooms in a communal establishment). The census address register is validated to ensure all fields are populated correctly and to check address and postcode information matches. There is ongoing engagement with local authorities and suppliers. For example checking why some letters are undeliverable.
- The key issues are conflicting information from sources, incorrect classifications, different numbering between sources and status of address not updated.
- Errors in addressing can lead to a negative impact on response rate, more resources to support field operations, more resources to support quality assurance work, lower quality census data, delay in publishing census results, negative impact on budget and reputation damage as a result of bad publicity.
- NRS is continuing to evaluate these addresses and work with data suppliers to enhance core data and resolve common issues. Quality assurance work is also on going, as are matching exercises.

4.1.1 Mike Atkinson asked about NRS plans to feedback final outputs to the custodians. Tricia said that NRS does work with custodians to feedback address issues and fix these at source. However, when it comes to the census they will overwrite this if they think that NRS has the most up to date data. The data from the census is confidential so this won't be available. Mike said that the concern is that this isn't the most efficient use of resources as councils may have to verify addresses that have already been verified as part of the census. Esta agreed however current legislation means that this data cannot be shared.

## **5 Scotland's Census 2021**

### **5.1 Statistical quality assurance plans for Scottish Census 2021 (PAMS (19) Presentation 03)**

Kirsty Yule from NRS presented to the group about the statistical quality assurance strategy for the 2021 census.

- The 2021 census will be conducted primarily online, making the best use of technology and digital services. A paper questionnaire will be available upon request.
- NRS is focused on understanding the needs of both data users and respondents. The census will continue to provide valuable and high quality data that is not available anywhere else.
- The success of this census will be judged primarily on its ability to deliver high quality population and housing statistics. The statistical quality assurance strategy covers the end to end process that needs to be taken in order to produce high quality data.
- Every process and step taken to produce in the census journey will be quality assured in order to prevent error. Internal and external assurance panels will take place to help critique these methods and review population estimates. They are working towards the census having National Statistics Accreditation where all activities and outputs are assessed against trustworthiness, quality and value.
- There are three phases to the census maintaining its National Statistics Accreditation. It is a 10 years process which began in 2014 and will finish in 2024. The first phase, which made some recommendations has now been completed and the action plan is tabled at today's meeting for comments. The Office for Statistics Regulation (OSR) recommended adding more material to the website to ensure that the transparency of the process was better understood, particularly updating the website to make it more accessible. There is now work going on to complete this.
- In order to maximise the response rate, the census can be completed online or on paper. There will be a marketing campaign, contact made by post, a contact centre to help respondents complete, targeted field force and a census coverage survey to help maximise response rate.
- There have been unexpected events which have affected previous censuses, such as foot and mouth in Scotland in 2001, wildfires in Canada and a low census response in New Zealand. There have been unexpected events, such as floods, in previous years in the UK which are an example of the type of events that could result in a lower response rate.

5.1.1 Kirsty said the quality assurance strategy will be published on the website in mid-December and asked if there were any suggestions on this or anything else which should be included. No comments, but feedback forms were given out.

5.1.2 Kirsty asked PAMS members about their views on NRS' proposed response to the requirements given by OSR. There were no comments.

5.1.3 Kirsty asked the room if they thought that Scotland should be examining how administrative data could supplement the census in the event of under coverage due to natural disasters or a low response rate. Paul McNamara asked what an acceptable response rate is. Esta Clark said that it depends on the coverage of the data. In the case of New Zealand, there was a response rate in the high 60s, but the census missed indigenous populations. Use of admin and previous census data still left gaps. Paul said that the availability of this administrative data would be useful, and the ability of cross-tabulation with census data would be powerful. There were no objections to the use of administrative data as a contingency if response rates were low in the census.

## **5.2 Scotland's Census 2021 Rehearsal Up-date (PAMS (19) Presentation 04)**

Esta Clark gave an update on the census rehearsal.

- The rehearsal aims to create an opportunity to learn lessons of how systems and processes operate and interact with users in a real world context to reduce risk for the census in 2021.
- The rehearsal consisted of an initial contact letter followed by two reminder letters. It consisted of three questionnaires (household, individual and continuation) and was open for collection from 7 October to 7 November, with a reference date of 13 October. Language packs were included and a telephone helpline was available. There were limited marketing and communications.
- Three areas were chosen for the rehearsal: Dumfries and Galloway, Na h-Eileanan Siar and Glasgow. Dumfries was chosen as it is on the border with England and Wales and could help flag any issues that may arise as the result of this boundary with ONS rehearsal in Carlisle. In Glasgow, households with harder to reach populations with digital exclusion were selected. Na h-Eileanan Siar was chosen as it is remote and also has relatively more connectivity issues.
- Return rates from the rehearsal were in the 20s which was in line with what was predicted. There is ongoing work to look into these responses in more detail, for example, if there were certain questions with high drop off, to determine if changes need to be made for 2021.

5.2.1 Steve Smallwood asked if NRS have looked at the pattern of responses in the rehearsal and asked if analysis of the impact of contact had taken place. Esta said that the first letter went out to residents between 6 am and 8 am on the 7<sup>th</sup> October and the first call was received at 8:05 am. She said they saw an uplift in responses on the first day and after the reminders. Unlike ONS and NISRA, NRS did not have people in the field and therefore could not evaluate this as part of the rehearsal.

5.2.2 Paul McNamara asked about the response time for the census questionnaire. Esta responded that it took on average around 20 minutes.

### **5.3 Output and Flexible Table Builder (PAMS (19) Presentation 05)**

Kirsty Yule presented on the output of flexible table builder and standard tables from the 2021 census.

- The dissemination strategy for the 2021 census was published in May 2018. The website will be with primary platform for outputs and will be redesigned to be more user friendly. Metadata will be incorporated, the number of tables will be reduced and a flexible table builder will allow users to create their own tables.
- The flexible table builder will reduce the need for standard tables and commissioned requests, however the commissioned table service will still be available for things that cannot be created using the flexible table builder.
- Over 400 standard tables were produced for 2011. The aim is to still produce standard tables for most output variables by age and sex, alongside a small number of other cross tabulations.

Kirsty asked the room about how they will use the tables in order to produce outputs which best meet user needs.

5.3.1 Emma Fitzpatrick asked about the limits to using this tool. Kirsty said that as long as it meets disclosure requirements, then the tool can create the output

data required by the user. There will be limits on how far it can drill down due to data protection. However, NRS can help with custom tables.

5.3.2 Steve Smallwood said that it would be possible to get slightly different numbers between tables, and users need to be aware of this. Kirsty agreed.

## **6 Scottish Index of Multiple Deprivation**

### **6.1 User Engagement data collection, methodology and dissemination (PAMS (19) Presentation 06).**

Elizabeth Fraser from the communities analysis division in Scottish Government gave a presentation on the Scottish index of multiple deprivation (SIMD).

- Elizabeth asked the room how many are heavy users of SIMD, most indicated that they are medium to heavy users.
- SIMD is multi faceted and can be hard to measure. It is a relative measure of multiple deprivation expressed at a small area level covering an entire country. It is an area based measure which identifies areas where there are relatively high concentrations of several different types of deprivation. The primary purpose is to identify areas with high levels of deprivation.
- Constructing the multiple deprivation index is a large exercise. It is made up of 7 domains (income, health, access, employment, education, crime and housing), consisting of nearly 40 indicators.
- The indicators include different types of measures using different scales. The indicators are combined to generate separate domain scores. These scores are then ranked and transformed. The transformed ranks are combined using appropriate domain weights to form overall index of multiple deprivation. Income and employment have the greatest weight, whereas other domains are weighted less heavily to reflect their relative contribution to overall levels of disadvantage.
- There are several issues that can arise when calculating SIMD. There are methodological issues in terms of robustness and transparency vs sophistication and complexity. The SIMD identifies areas of multiple deprivation, but doesn't necessarily capture the personal circumstances of everyone that lives within that area. There is also criticism that it doesn't reflect deprivation in rural areas the same way as it does in cities: the website includes an evidence review of rural deprivation and case studies assessing deprivation in rural areas. There is also the risk of unduly stigmatising areas with high levels of deprivation.
- The website for the Scottish Index of Multiple Deprivation includes an interactive mapping tool, which can be used to visualise areas of deprivation.
- There is an update planned for 2019 which focuses on improvements from the major review carried out for SIMD in 2014. The education indicator will be replaced with the Skills Development Scotland participation measure, and the access domain will include access to high-speed broadband.
- However, there have been delays in obtaining the data for the income domain and therefore the next update has not yet been completed. The option is to partially update in December and then fully update in the New Year, or to push the full update to January.
- Subsequent updates which will involve substantial development work due to changes in the welfare system and spatial units may change as the result of the 2021 census.

6.1.1 Paul McNamara suggested that instead of rushing to put information out before Christmas, it would be better to delay to January. Steve Morley agreed. The next update is now planned to be released on 28 January 2020.

## **7 Any other business**

Ryan Scott thanked everyone for coming and contributing and encouraged PAMS members to give feedback.

**Date and time of next meeting:** Wednesday 6<sup>th</sup> May 2020 (tentative).