when the data extraction form and Summary of Findings table format were modified for extraction of relevant data, all ten MSM studies had to be re-visited and a second phase of data extraction performed.

Conclusion Routine piloting in systematic reviews facilitated production of a “bespoke” review, with time saved both through efficient extraction of required data and the avoidance of extraction of unnecessary data. In addition, the mini-synthesis provided a potential version of the full review that could be discussed and agreed by all researchers at an early stage in the review process. This supported project management of the review, improved efficiency and ensured optimal usability for the researchers involved in the next stage of the research programme.

P28 **MORTALITY, ETHNICITY AND NATIVITY IN ENGLAND AND WALES-DO WE SEE A HEALTHY MIGRANT EFFECT?**

1P Wohland, 2P Norman, 3P Rees. 1Hull York Medical School, Hull University, Hull, UK; 2School of Geography, University of Leeds, Leeds, UK

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Background Population diversity in England and Wales (E&W) has steadily increased since 1991; the proportion of people defining themselves as not White has since doubled and increased to 14% of the total population by 2011. However, unlike other immigration countries mortality for ethnic groups, an important population health indicator, is not collected. To fill this knowledge gap we previously developed methods to estimate mortality for ethnic groups, one of which is through information of the geographical distribution of groups. We found that life expectancies (LE) for many ethnic minorities were below those of the White British. LE for ethnic minorities were related to the degree of deprivation groups experienced and partly counter-acted by the recency of arrival. Over time, the number of second and subsequent generation migrants who still define themselves with their parents’ ethnic group has increased. Here we investigate mortality differences between ethnic groups by nativity, to explore further the impact of nativity on health.

Methods We estimated mortality for ethnic groups in E&W by nativity- born in the UK and born abroad- for 18 groups as defined in the census 2011. Mortality rates are estimated using Rees et al. (2009) geographically weighted method. The derived mortality rates are used in standard abridged lifetable methodology to compute LE.

Results Briefly, variation in LE at birth for women is not very large but the differences between groups are in many instances significant. For LE at birth we find the highest LE for Arab women born abroad with 83.5 years and the lowest in Pakistani women born in the UK (82.2 years). Between women born in the UK, the maximum difference in LE is just over one year, for women born abroad the difference is nearly 1.3 years. In general we observe that the population born abroad has a higher LE at birth compared to the population born in the UK, but only in the White British group this difference is significant.

Conclusion We find a general trend in all ethnic groups that first generation migrants have better health compared to subsequent generations. However, due to small numbers, only 13% of the population in E&W is born abroad, variations are mostly not significant. Even though variation between groups estimated here are small, they are significant. These result iterate the importance to collect actual ethnic mortality data, to allow us to finally research the real variation in ethnic mortality in E&W.
Conclusion Delphi techniques allowed us to synthesise experts' consensus on best practice in assessing dietary intake. The BPG will help non-expert researchers to consider key factors when selecting a DAt. These guidelines will be included on the Nutritools website (http://www.food.leeds.ac.uk/nutritools). Nutritools will host interactive dietary assessment tools and guidance for nutrition researchers, healthcare practitioners and other scientists.

Background Organisational case study proposals can be poorly articulated and methodologically weak, raising the possible need for publication standards in this area.

This rapid review and Delphi consensus process sought to develop reporting standards for organisational case study research, with particular application to the UK National Health Service (NHS).

Methods The reporting standards were developed in three stages: 1) Rapid evidence synthesis of the existing literature. 2) A modified Delphi consensus. 3) Application of the high-consensus Delphi items to a sample of organisational case studies to assess their feasibility as reporting standards.

Results 103 unique reporting items were identified from 25 methodological texts; eight example case studies and 12 exemplar case studies did not provide any additional unique items. Thirteen items were ultimately rated as “Should be reported for all organisational case studies” by at least 70% of respondents, with the degree of consensus ranging from 73% to 100%.

As a whole, exemplar case studies (which had been provided by the project funder as examples of methodologically strong projects) more consistently met the high-consensus Delphi items than did case studies drawn from the literature more broadly.

Conclusion The high-consensus items were translated into a set of 13 reporting standards that aim to improve the consistency and rigour of organisational case study research, thereby making it more accessible and useful to different audiences. We will present the final list of reporting items.

Background Low grip strength is a key component of sarcopenia and frailty and a powerful predictor of mortality, morbidity and disability. Despite increasing interest in understanding grip strength from a life course perspective, little is known about grip strength decline in the very old (aged 85+). We examined trajectories of grip strength in very old adults and identified the determinants.

Methods Grip strength (kg) was measured at four time points over 5 years in 319 men and 529 women participating in the Newcastle 85+ Study. Mixed models were used to establish trajectories of grip strength and associated factors in all participants, men and women separately, and in those with weak grip strength (≤27 kg in men, and ≤16 kg in women) at baseline and follow-ups.

Results In the time-only model, men experienced linear annual decline in grip strength of −1.13 (0.8) kg (β (SE), P < 0.001), whilst women’s decline although slower, accelerated by −0.06 (0.02) kg (P = 0.01) throughout the follow-up above the loss experienced in the first year. In the saturated model, higher baseline physical activity, height, fat-free mass, and better self-rated health were associated with stronger grip strength initially in both sexes. Annual grip strength decline in men and participants with weak grip strength who were highly physically active was slower by 0.95 and 0.51 kg, respectively compared with inactive counterparts.

Conclusion Grip strength decline in this cohort of very old adults followed linear (men) and curvilinear (women) trends. High levels of physical activity were protective in men and in those with overall weak grip strength. These findings have relevance to the design of interventions to improve muscle strength in later life.