Methods This study uses a random nationally-representative sample of 4111 adults aged 25–64 years (78% response rate) collected in 2010 using the WHO STEPwise survey methods, restricted to non-pregnant participants with valid weight and height measurements ($n=3533$). We categorised body mass index from measured height and weight to determine underweight, overweight and obesity (WHO thresholds). Analyses were stratified by gender. All analyses were weighted for non-response and adjusted for complex survey design using STATA14. We conducted multivariate multinomial regression analysis to identify factors associated with underweight, overweight and obesity, using normal weight as reference. Fully adjusted relative risk ratios (ARRR) with their corresponding 95% confidence intervals (CI) are reported.

Results Two-fifths of adults in The Gambia were overweight or obese, with a higher prevalence of obesity in women (17.0%, [95% CI 14.7% to 19.7%]) vs 8.1% in men, [6.0–11.0%]) and urban residents. Urban residence, abdominal obesity, higher education, and age were significantly associated with obesity among both men and women. Obesity was also significantly associated with low fruit and vegetable intake in men, and with hypertension and ethnicity in women. Most of these variables were also significantly associated with overweight. Compared with rural residents, the risk of overweight and obesity among urban residents were three- and six-fold higher respectively in men (overweight: ARRR 3.1, 95% CI 1.7 to 5.6; obesity: 6.6, 2.5–17.2) and in women (overweight: 3.2, 1.9–5.4; obesity: 5.9, 3.1–11.2). No significant associations were found for underweight, except for smoking and ethnicity in men and old age and ethnicity in women.

Conclusion This study reveals that the burden of obesity is increasing at an alarming rate in The Gambia. Preventive strategies should be directed at raising awareness of the risk factors, discouraging harmful beliefs on weight, and the promotion of healthy diet and physical activity particularly in urban areas and among women.

P48 WHAT BARRIERS AND FACILITATORS INFLUENCE THE IMPLEMENTATION OF NEW HIGH-RISK MEDICINE SERVICES IN SCOTTISH COMMUNITY PHARMACIES?

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Background In the UK, 6.5% of hospital admissions are attributed to adverse effects of high-risk medicines, including warfarin and non-steroidal anti-inflammatory drugs (NSAIDs). Warfarin and NSAIDs 'care bundles' were developed to address this. These services focus on improving care processes and patient outcomes. They focus on medication-specific interactions and patient education, and were piloted in 2017 in 24 pharmacies across four healthcare regions, with intent for national implementation. This study aims to identify barriers and facilitators influencing their successful implementation.

Methods Following a systematic review identifying barriers and facilitators to the national implementation of community pharmacy innovations, a questionnaire was developed and disseminated in June 2017 to pharmacy staff ($n=217$) in the pilot pharmacies. Multivariate regression analysis was conducted to identify barriers and facilitators influencing successful implementation (determined using a 6-item Likert-scale). Pearson's-

Chi Square test was used to identify differences between the bundles.

Results Seventy-four participants (34.1%) responded from 17 pharmacies (70.8%). 73.1% and 72.1% considered the warfarin and NSAIDs bundles successfully implemented respectively. Multivariate regression analysis identified two factors influencing successful implementation of the warfarin bundle ($p<0.001$, $R^2=0.752$): compatibility of the bundle with pharmacies' processes; and positive perceptions of patients. For the NSAIDs bundle, four predictors of implementation success ($p<0.001$, $R^2=0.633$) were identified: pharmacy staff having sufficient knowledge of NSAIDs; perceived incentives involved in bundle delivery; workload of the NSAIDs bundle; and funding. Compared to the NSAIDs bundle, pharmacy staff involved with the warfarin bundle were less likely to agree there were sufficient pharmacy staff ($p=0.030$), and that they had enough time ($p=0.025$) and training ($p=0.004$) to deliver the bundle.

Conclusion The questionnaire successfully identified barriers and facilitators to the implementation of the bundles. Warfarin bundle success factors (compatibility and positive patient perceptions) were unsurprising as previous strategies in Scotland have engaged pharmacies with warfarin counselling, and patients are likely to have experienced some warfarin counselling already. This is not the case for NSAIDs, therefore it is understandable that additional strategic facilitators (incentives and funding) were success factors. Workload associated with the NSAIDs bundle was a risk to successful implementation, potentially explained by the greater number of patients from over-the-counter purchases and prescription supplies. Contextual factors not captured may explain differences (e.g. regional staffing issues may explain why warfarin bundle participants were less likely to think they had sufficient staff and time).

P49 SPATIAL DISTRIBUTION OF SOCIOECONOMICALLY DEPRIVED IMMIGRANTS AND THEIR ACCESS TO HEALTHCARE SERVICES IN A NORTHERN CITY IN CHILE

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Background Immigrant population have exponentially grown in the past thirty years in Chile, concentrating in the northern and central areas of the country. Iquique is one of the densest cities in the country in terms of international migrants, reaching around 10% of total population. In this city, healthcare network is divided into 4 primary care centres and one hospital. No study, however, has analysed where socioeconomically deprived immigrants are located in the city and how they access healthcare services compared to the local population. This study aimed at analysing the spatial location of international migrants in socioeconomic deprivation in the city of Iquique and how they access public healthcare, as well as compare it to the locals.

Methods Secondary data analysis of 2012 census data in Chile. We built a multiple index of deprivation for immigrants and locals separately, with the following dimensions at the census track level ($n=1,879$): (i) educational level (none/primary/secondary/higher), (ii) any disability (yes/no), (iii) housing (overcrowded, collective, rented), (v) crime (theft/burglary) (iv) environment (traffic accidents). Dimensions of the index were

normalized and equally weighted. We compared the multiple index of deprivation between immigrants and the local population. We also measured access to primary healthcare services, as the nearest distance from the centroid of census tract to the corresponding health service through a GIS platform.

Results Socioeconomically deprived immigrants concentrate in the same areas that as the local population, that is in the north and centre boroughs of the city. These deprived areas do not only concentrate higher deprived population, but also concentrate higher crime rates and fewer healthcare services than other areas of the city. Nevertheless, the spatial access to primary healthcare services is similar across the four primary healthcare services, averaging 1 kilometer of distance.

Conclusion The spatial characterization of socioeconomically deprived population and their distance to healthcare services is useful for policy design and evaluation. We found that both immigrant and local population in socioeconomic deprivation tend to concentrate in similar poorer sectors of the city. The multidimensional index of deprivation was measured for the first time in Chile and became highly informative. More studies are required to understand how socioeconomic deprivation might impact on accessing healthcare among immigrant population in Chile and other countries.

P50 ABSTRACT WITHDRAWN

P51 COMORBIDITIES AND THE CLINICAL PATHWAY TO ACCESS JOINT REPLACEMENT SURGERY: AN EXPLORATORY QUALITATIVE STUDY

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Background Hip and knee replacement surgery is one of the most common and effective surgical procedures. The rise in multi-morbidity world-wide is leading to increasing numbers of patients with comorbid conditions undergoing joint replacement surgery. Financially stretched commissioners of health care services in the English National Health Service (NHS) are increasingly seeking to restrict access to elective surgery, including hip and knee replacement surgery despite a lack of evidence to support these decisions. It is important to get a better understanding of the referral and selection of patients with comorbidities for joint replacement surgery.

Methods An exploratory qualitative approach involving semi-structured interviews with eight orthopaedic surgeons, seven general practitioners (GPs), and five professionals working in intermediate musculoskeletal services (specific centres within the English NHS to support the referral process from primary to specialised care).

Results In general, the presence of comorbidities was not seen as a barrier to being referred or selected for joint replacement. Each professional group, however, concentrated on different aspects of the patients' condition which appeared to affect how each group managed patients with comorbidities. GPs focused on the long-term impact that comorbidities have

on the patients' everyday life. Intermediate care professionals focused on the short-term impact of comorbidities on the patients' likelihood of being selected for surgery. Orthopaedic surgeons focused on the short-term impact of comorbidities on the surgery itself. This implied there was a disagreement about roles and responsibilities in the management of patients with comorbidities. None of the three groups believed it was their responsibility to address comorbidities in preparation for surgery. This disagreement was identified as a reason why some patients seem to 'get lost' in the referral system when they were considered to be unprepared for surgery. Patients were then potentially left to manage their own comorbidities before being reconsidered for joint replacement.

Conclusion At the clinician-level, comorbidities were not perceived as a barrier to accessing joint replacement surgery but at the pathway-level, it may create an implicit barrier such that patients with comorbidities may get 'lost' to the system. The current orthopaedic clinical pathway may be less suitable for patients with comorbidities.

P52 THE EFFECT OF STEP-DOWN INTERMEDIATE CARE ON DAYS LOST TO DELAYED DISCHARGE FROM HOSPITAL: A CONTROLLED INTERRUPTED TIME SERIES ANALYSIS

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Background Step-Down Intermediate Care (IC) was developed in Glasgow City and implemented in November 2014. IC units act as a bridging service between hospital and home, for those deemed medically fit for discharge, but who would otherwise spend some time delayed in hospital, usually due to a lack of appropriate care, support or accommodation in the community. The aim of this study was to measure the effect of IC on days delayed.

Methods Rate of days delayed per 1000 population aged 75 years+ in Glasgow City was compared before and after onset of IC with a 6 month phase-in period, using segmented linear regression with 23-month (January 2013–November 2014) pre- and 13-month (June 2015–June 2016) post- intervention periods. Rate of delayed days for residents of Inverclyde and West Dunbartonshire (I&WD)- areas with similar high levels of deprivation, within NHS GGC, but with no IC in place – were used as a comparison group, as in April 2015 a national target was set to reduce delays.

Results Between January 2013 and November 2014 rate of days delayed in hospital increased by 41%. Rate of days delayed in I&WD was approximately half that of Glasgow at the start of the study period, however these also increased in the pre intervention period, by 33%. Rates reduced in both areas between November 2014 and June 2015. After accounting for secular changes pre-intervention, Glasgow City saw a level change of –57.66 (–60.85, –54.48) days per 1000 population with no significant change in trend, 0.35 (–0.19, 0.88). However, following adjustment for changes in I&WD, and therefore a factoring out of the new national target, the impact of IC in Glasgow City was found to be a level change of –12.56 (–17.65, –7.47) and a trend change of –0.38 (–0.73, –0.04). This is equivalent to a predicted reduction due to IC of –7.28 days delayed per 1000 popn, in June 2016, and a relative reduction of 18%. Rate of days delayed in Glasgow City continued to increase over time after the