Conclusion The findings corroborate the minority stress theory, but they also generate new questions for researchers around when and why these inequalities emerge.

P36 REGIONAL AND SOCIOECONOMIC DISPARITIES IN CHILD-TO-ADOLESCENT GROWTH TRAJECTORIES ACROSS GENERATIONS IN CHINA

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Background China has experienced rapid economic development since the 1990s, which has led to regional development inequality and could have an impact on the physical growth in Chinese children. Study about changes in growth trajectories across generations by region and socioeconomic (SES) factors is needed for informing policy to reduce inequality.

Methods We used the longitudinal data of 5118 children from China Health and Nutrition Survey (CHNS), who were born during 1981–2000 and whose height and weight were measured between 7–18y during 1991–2015. Four birth cohorts were derived (1981–85, 86–90, 91–95 and 96–2000) and mixed-effects fractional polynomial functions were applied to estimate child-to-adolescent growth trajectories by gender and cohort. Growth trajectories were further stratified by region (west, central, east and northeast) and urban/rural separately. Finally, both geographic and parental SES determinants (log-household income, paternal occupation and maternal education) were adjusted to estimate their association with childhood physical growth across cohorts.

Results Mean growth trajectories for height and BMI both shifted upwards across cohorts. The increase in BMI between the oldest (1981–85) and youngest (1996–2000) cohorts was ~0.8 kg/m² at 9 y (both genders) and remained in boys while narrowed in girls since late adolescence (0.4 kg/m² at 17 y). The increase in height widened pre-puberty (5.7 cm in boys and 4.4 cm in girls at 13 y) and decreased thereafter. There were evident regional disparities in growth: gender/cohort-specific BMI trajectories for children from the east region lay above those from the northeast region, followed by those for children from central/west areas. Height trajectory from northeast was the highest, followed by east, central and west regions. Growth increment across cohorts showed a similar regional pattern (e.g. children in west experienced the smallest growth increment across cohorts).

Urban children had higher BMI, were taller and had greater BMI increment while smaller height increment across cohorts than their rural counterparts, thus the urban-rural difference widened in BMI while narrowed in height across generations. Higher parental SES was associated with higher BMI and taller stature. The strength of relationship between maternal education with children's height was stronger in younger than in older cohorts.

Conclusion While children from urban and east region had higher BMI and greater BMI increment across cohorts, children from underdeveloped western China remain to be the shortest and should be maximized their potential of linear growth. The positive relationship between parental SES and children’s BMI, which was opposite to the evidence in Western countries, may reflect a different mechanism in developing countries.

P37 IDENTIFYING LONG-TERM, HIGH-DOSE USERS OF OPIOID DRUGS PRESCRIBED FOR CHRONIC NON-CANCER PAIN IN THE COMMUNITY

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Background Studies of prescribing of opioid medication for chronic pain in the UK population show that it has increased sharply over the past 25 years. Although overall rates may have begun to decline recently, longer-term use and prescribing of ‘strong’ opioids continue to rise. Whilst analysis of data at a population level can tell us much about the use of these medications, an analysis at an individual level is needed to understand which patients, and how many, are at greatest risk from these potentially harmful drugs. Harms associated with these drugs are related to dose and length of use. The aim of this study was to develop a method to identify patients prescribed long-term, high doses of these drugs in the community and to assess the prevalence of such use.

Methods Details of all opioid prescriptions issued over a four-month period were collected from two demographically dissimilar GP practices. A total of 22,841 patients were registered at the practices, 1488 (6.5%) of whom were prescribed opioids in the study period. Exhaustive examination of prescription data identified all patients who were prescribed oral morphine equivalent (ME) doses of 120 mg/day or more in the census period. An examination of the prescription histories of these patients indicated those who had been prescribed opioids at this level for a year or more.

Results Every patient who met our criterion of ≥120 mg/day ME for a year or more was being prescribed that level as a single drug of morphine, oxycodone or fentanyl, irrespective of opioid polypharmacy. Across the two practices, 1.71/1000 patients were identified as long-term, high-dose users of opioid medication for chronic non-cancer pain. Prevalence was similar in the two practices. Unadjusted extrapolation suggests that there are over 100,000 similar patients in the UK.

Conclusion This study provides a simple, reliable and practical means of identifying patients prescribed long-term high-dose opioid medication for chronic pain. These regimens are unlikely to provide additional pain relief but increase the risk of harm to patients. They have marked negative effects on day-to-day functioning and quality of life. Patients of interest can be identified simply through their use of three drugs as threshold doses and above. This can help in the further investigation of dysfunctional medication use; in establishing national and local prevalence; in monitoring service provision; and in identifying associated factors, such as social deprivation and regional variation.

P38 EXPLORING THE EFFECT OF NATIONAL INSTITUTE OF HEALTH AND CLINICAL EXCELLENCE GUIDELINES ON PRESCRIBING BEHAVIOUR FOR CHILDHOOD ATOPIC ECZEMA IN PRIMARY CARE WITH AN INTERRUPTED TIME SERIES

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Background The National Institute for Health and Care Excellence (NICE) guidelines for atopic eczema were published in 2007. The effect of these guidelines on prescribing practices in primary care remains unknown.

Methods A retrospective interrupted time series design was used. Primary care practices were identified that filled at least two 6-month indices with complete electronic records, one index pre-guideline publication and one post-guideline publication. A total of 36 practices were included. A total of 1154 children with eczema were followed for 2 years, for whom complete data were available. Changes in prescribing were compared between the two time periods using chi-squared tests.

Results The proportion of children started on high-dose oral corticosteroids declined significantly following the guideline publication (pre: 29%, post: 15%, p=0.002). There were also significant declines in the use of multiple topical corticosteroids (pre: 51%, post: 37%, p=0.005) and ciclosporin (pre: 0%, post: 2%, p=0.007). The use of oral non-steroidal anti-inflammatory drugs increased significantly following the guideline publication (pre: 6%, post: 11%, p=0.02). No significant changes were observed in the use of montelukast or the use of ciclosporin in patients aged under 18 years.

Conclusion The NICE guideline for atopic eczema had an impact in primary care, most notably on the reduction in high-dose oral corticosteroids, multiple topical corticosteroids and ciclosporin. Further studies are needed to confirm these findings and to assess the impact on outcomes.
Background Prescribing, monitoring and administration of medicines in care homes could be significantly improved. Research has identified the need for one person to assume overall responsibility for medicines management within care homes. The advent of pharmacist independent prescribers (PIPs) provides an opportunity for pharmacists to assume this role. Although this approach is already being implemented, there has been no testing of effectiveness. This cluster randomised controlled trial (RCT) sets out to establish effectiveness and cost-effectiveness of PIPs.

Methods A cluster RCT across 90 care homes in England, Scotland and Northern Ireland with an internal pilot. The trial was designed following a programme of developmental and feasibility work in accordance with the MRC framework for developing and evaluating a complex intervention. The unit of randomisation is a triad (a PIP, a GP practice and a care home(s)). In the intervention group, the PIP is responsible for providing medication review, pharmaceutical care planning, prescribing and deprescribing for care home residents; supports the care home and optimises communication between GPs, care homes, and supplying pharmacy. The primary outcome is resident falls at 6 months. Secondary outcomes include resident health-related quality of life, medication burden, mortality and hospitalisation. Sample size is 880 residents across 44 triads to provide 80% power to detect a 20% decrease in fall rate from 1.5/resident to 1.178 with an ICC of 0.05 or less. We have conducted a parallel process evaluation including in-depth qualitative interviews with stakeholders.

Results The internal pilot study confirmed feasibility of the RCT with no significant adverse events. The trial completed recruitment to its sample size in October 2019, and follow-up will complete in March 2020. Characteristics of all residents recruited are: mean age 85 years; 70% female; 13% had capacity to consent; median number medications 7; fall rate 0.55/three months; mean Drug Burden Index 0.64; Charlson Morbidity Index 5.98; proxy EQ-5D 0.32; Barthel index 7.51. Full trial results will be available at the SSM Annual Scientific Meeting. Preliminary analysis of qualitative stakeholder interviews suggests changing professional roles need to be actively managed and effective communication systems implemented.

Conclusion As yet we do not know the trial outcome. A positive finding would support the provision of PIP-type interventions in care homes, whilst a negative finding would imply pharmacist resources may be better directed elsewhere. Either will be of great significance for UK pharmacy practice.

On behalf of CHIPPS investigators.