

and thoracic MRI (tMRI) respectively (bMRI OR 3.48; 95% CI: 2.51–4.82; cMRI OR 2.93; 95% CI: 1.94–4.45; tMRI OR 2.50; 95% CI: 1.51–4.14). **Conclusions:** MRI plays a large role in how MS specialists diagnose, treat, and monitor MS. We found that telehealth patients had greater odds of MRI utilization. Due to data limitations, we were unable to control for all potential influencing factors. However, our results suggest future inquiry targeting the differences in patient care practices based on care delivery type related to imaging utilization and related MS population health outcomes.

### MT3

#### ASSESSING THE POTENTIAL VALUE OF WEARABLE DIGITAL HEALTH TECHNOLOGIES IN CHRONIC KIDNEY DISEASE USING EARLY HTA METHODS

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**Objectives:** Wearable digital health technologies (WDHTs) offer several solutions in terms of chronic disease monitoring, management and delivery of specific interventions. Early HTA methods can inform considerations about the potential clinical and economic benefits of technology in the initial phases of the product's lifecycle, facilitating identification of those R&D investments with the greatest potential stakeholders' payoff. We report our experience of using early HTA methods to support R&D decisions relating to novel WDHT being designed to support self-management of chronic kidney disease (CKD). **Methods:** We performed a literature review, focus-group interviews with stage  $\geq 3$  CKD patients, and qualitative interviews with the prototype development team to understand the relevant characteristics of WDHTs, quantify relevant clinical indications and existing technological constraints. An early economic evaluation was used to identify the key drivers of value for money, and a discrete choice experiment shed light onto patient preferences towards what key features the WDHT should have for the users to adopt it. Then a model-based cost-effectiveness analysis was undertaken incorporating headroom analysis, return on investment, one-way sensitivity and scenario analyses. **Results:** The literature review, focus group discussions with CKD patients, and qualitative interview with technology developer helped to understand relevant characteristics of WDHT and user preferences helped inform the next R&D iteration. Compared to the standard care, WDHT that support stage  $\geq 3$  CKD patients self-management at home by measuring blood pressure and monitor mobility has the potential to be cost-effective at conventional cost-effectiveness threshold levels (that is £20,000–£30,000/QALY). From the headroom analysis, novel WDHT can be priced up to £280 and still be cost-effective compared to standard home blood pressure monitoring. **Conclusions:** Our study provides valuable information for the further development of the WDHT, such as defining a go/no-go decision, as well as providing a template for performing early HTA of Digital Health Interventions.



#### Alternative Medicine & Nutrition - Epidemiology & Public Health

### PAM1

#### WILLINGNESS TO PAY FOR SUGAR-SWEETENED BEVERAGES TAX IN AN AFFLUENT SETTING OF ASIA: A PRELIMINARY FINDING

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**Objectives:** To assess the tax rates that an individual will change their consumption frequency for sugar-sweetened beverages (SSB) products i.e. Willingness to pay (WTP) **Methods:** We conducted a cross-sectional study via a random telephone survey for adult residents in Hong Kong from May to June, 2020. SSBs products were referred to all non-alcoholic water based beverages with added sugar. WTP of a respondent was defined as the accepted price that he is willing to pay for the SSB products without a reduction of purchase given a taxation scenario, and the maximum WTP (WTP<sub>M</sub>) was defined as the highest accepted price that a respondent consuming SSB products. The questionnaire was designed consisting of socio-demographics, physical conditions, SSB consumption frequency, perception about SSB products, and WTP for each types of SSBs. **Results:** A total of 1,000 subjects were successfully interviewed and the response rate was 59.1%. We found the local population had a high consumption behavior of SSB products and even though a half of them perceived that a consumption of SSB products could contribute a risk of getting chronic diseases, only a moderate proportion of WTP (>60%) at a typical range of taxation (i.e. 5%–10%) was reported. Among the SSB products, we found a comparatively higher proportion of WTP in sweetened tea/coffee and the WTP<sub>M</sub> was less sensitive when the price was increased, primarily due to a regular consumption in the daily lives of local population. Compared with the adults, the proportions of WTP in children were relatively lower indicating a higher effect of SSB tax. **Conclusions:** This is the very first study in the Chinese society to identify determinants for individuals' WTP and evaluate the acceptability of taxation policy on SSB products. The findings thus help with designing SSB tax policy especially in the Chinese population.



### MT4

#### SAFETY WARNINGS ABOUT POWER MORCELLATION IN HYSTERECTOMY: A SIMULATION OF NATIONAL IMPACT

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**Objectives:** Laparoscopic hysterectomy has lower perioperative morbidity than abdominal hysterectomy. However, in 2014, the U.S. Food and Drug Administration warned that laparoscopic power morcellation increases tumor dissemination if patients have occult uterine cancer. This has increased use of abdominal hysterectomy. We simulated national health and financial impact of this practice change by accounting for both hysterectomy- and occult cancer-related outcomes. **Methods:** Using the State Inpatient Database and State Ambulatory Surgery and Services Database from Florida, Iowa, Kentucky, Michigan, Minnesota, Nebraska, New Jersey, North Carolina, Oregon, Vermont, and Wisconsin, as well as data from the New York Statewide Planning and Research Cooperative System and New York State Cancer Registry, we examined hysterectomies in the pre-warning (2013Q1–2013Q4) and post-warning (2014Q4–2015Q3) period. Via multivariable regression, we estimated patient outcomes and the counterfactual distribution of hysterectomy route in the post-warning period had there been no morcellation warning. Extrapolating these estimates to the national population and incorporating additional parameter estimates from the literature, we simulated the lifetime costs (societal perspective) and quality-adjusted life-years (QALYs) of patients nationwide in the post-warning period, compared to the counterfactual scenario had there been no morcellation warning. **Results:** The national simulation sample included 360,471 patients age  $\geq 18$  years undergoing hysterectomy for presumed benign indications in the post-warning period. In base-case micro-simulation, the practice change led to more surgical complications but fewer



### PAM2

#### 30 DAY READMISSIONS OF PATIENTS WITH A MALNUTRITION DIAGNOSIS: EXPLORATION OF THE US HOSPITAL POPULATION

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**Objectives:** Acute and chronic malnutrition is a serious condition known to worsen many healthcare outcomes, delay recovery, and slow return to desired quality of life. This study uses the National Readmission Database (NRD) 2017 data, from the Healthcare Cost and Utilization Project (HCUP), Agency for Healthcare Research and Quality (AHRQ) to explore readmission events among patients with an index visit that included a malnutrition diagnosis. **Methods:** Any patient in the NRD who had an ICD-10 code for malnutrition in the first ten diagnoses was included. Patients who had a non-elective hospital readmission within 30-days of discharge from the index visit were flagged for readmission. Major Diagnostic Categories (MDC) were used to classify causes for the index visit and adjusted Wald p-values were used to identify characteristics that were significantly different between those who had a readmission event and those who did not. A weighted, adjusted logistic regression was used to identify characteristics that increase the odds a patient who has an index visit will also have a readmission. **Results:** 407,440 eligible index visits were identified, 94,140 (22.97%) of which were followed by a readmission event. Infectious and parasitic disease and disorders (19.38%) and respiratory system (14.63%) were the most common MDCs assigned at the index visit. Characteristics associated with 30-day unplanned readmissions included age, male gender, and length of stay at the index visit. The presence of stage 2 (aOR: 1.20; 95% CI: 1.14 – 1.27) or stage 3 (aOR: 1.20; 95% CI: 1.13 – 1.26) pressure ulcer at the index event and discharge against medical advice (aOR: 1.84; 95% CI: 1.73 – 1.97) were also significant. **Conclusions:** 30-day readmissions are common following an index visit that included a diagnosis of malnutrition. Provision needs to be made

