health related information. **RESULTS:** Of the 3,571 individuals 2,593 were employed and 978 unemployed, among the latter 27.6% because of health reasons. As consequences of health disturbances 4.9% of the individuals in the employed group and 9.7% of the unemployed group reported having to cut work short 3 or more times in the last 12 months.

**CONCLUSIONS:** In recent times been subjected to fresh consideration, mainly driven by the introduction of EQ-5D-5L. However, methods in relation to modelling of health states exist.

**METHODS:** The development process resulted in an instrument including 24 general attributes related to patient’s perceived benefit of medical devices, was designed to capture any extreme health changes in terms of immediate, direct and short and deferred benefits in general population. Its modular structure allows interdisciplinary users to address their specific research (including experimental and external comparison studies) needs by selecting the module(s) relevant to their objectives.

**PM167**

MEASURING PREFERENCE-BASED PATIENT BENEFIT OF MEDICAL DEVICES: A NEW INSTRUMENT FOR HEALTH ECONOMIC ASSESSMENTS

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**OBJECTIVES:** There is a need for a standardised method for measuring patients’ perceived benefit of medical devices. Currently available instruments are either too crude, or applicable only to a specific disease or product. Our objective was to develop a new instrument to measure patients’ preference for the benefit of medical devices, applicable in health economic assessments of any type of medical device used by patients with any type of disease/disability. **METHODS:** The development followed standard qualitative and quantitative procedures. Interviews with health care personnel within a wide range of disease areas were conducted. General attributes of patient benefit with relevance for various medical devices and for various disease states were identified from these interviews.

To refine and test the instrument, these general attributes were validated among health care personnel, patient organizations, manufacturers of medical devices, and in two pilot studies [n=119, n=260] in the general population. In the final step, questionnaires are administered to a sample of the general Swedish population and analysed using a statistical weighting algorithm to assess the relative importance of each attribute. **RESULTS:** The development process resulted in an instrument including 24 general attributes related to patient’s perceived benefit of medical devices within the following domains: sense of security, social participation, integrity, convenience and useability. Preliminary results indicate that the attributes with highest preference concern reliability, and sense of control of the disease/disability. Facilitation of overnight travelling and storage convenience are considered less important. Attributes concerning social acceptability are of higher importance to younger than to older persons, while simplicity in using the device is more important to older persons. **CONCLUSIONS:** A novel instrument for measuring patient benefit of medical devices has been developed. This instrument may be used in health economic assessments of various medical devices used in a wide range of diseases.

**PM168**

SURVEY OF NEUROLOGIST’S CURRENT PRACTICES IN EVALUATING MULTIPLE SCLEROSIS TO IDENTIFY DOMAINS FOR NEW CLINICAL TOOLS

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**OBJECTIVES:** An online survey was conducted with neurologists to understand how they assess multiple sclerosis (MS) during typical office visits. This information was gathered to support the possible development of outcome measures for patients with MS. **METHODS:** A web-based survey was conducted with neurologists (n=9) in the United Kingdom (n=6) and the USA (n=3). On a scale of 1 to 5 (5 being most commonly used), a brief clinician-reported measure of MS symptoms and impact was identified. The five domains assessed were: Motor (68.6%), cognitive (12.5%), pain (80.6%), bladder (79.2%), coordination (79.2%), weakness (79.2%), balance (73.6%). The most commonly used measures were PRM168 (r= 0.89 and 0.82 for sensorimotor and emotional dimensions, respectively) and test-retest reliability (intraclass correlation coefficient = 0.96). Internal consistency reliability and factor analysis allowed assessing the construct validity. Convergent and discriminant validity were assessed with comparisons with SF-36, PRM168, HADS and clinical parameters).

**RESULTS:** The validated structure of the Well-BFQ has a modular backbone composed of “Grocery (satisfaction and hedonism)”、“Shopping” (satisfaction and hedonism), “Cooking” (satisfaction and hedonism), “Dining places” (satisfaction and hedonism). Each module is measured in terms of food behaviour and benefits: immediate (Pleasure, Security, and Relaxation); direct and short term (Diet, Health, and Energy); and long term (Quality of Life, Social acceptance). The Well-BFQ is therefore an instrument to assess the full picture of well-being related to food and eating habits in terms of immediate, direct and short and deferred benefits in general population. Its modular structure allows interdisciplinary users to address their specific research (including experimental and external comparison studies) needs by selecting the module(s) relevant to their objectives.

**PM169**

PSYCHOMETRIC VALIDATION OF THE MULTIDIMENSIONAL DYSPEPSIA PROFILE (MDPQ) FOR CLINICIAN-REPORTED OUTCOMES

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**OBJECTIVES:** The main population included dyspeptic patients who consult with gastroenterologists. The aim of the MDPQ was to develop a general instrument that measures preference-based patient benefit of medical devices within the following domains: sense of security, social participation, integrity, convenience and useability. Preliminary results indicate that the attributes with highest preference concern reliability, and sense of control of the disease/disability. Facilitation of overnight travelling and storage convenience are considered less important. Attributes concerning social acceptability are of higher importance to younger than to older persons, while simplicity in using the device is more important to older persons. **CONCLUSIONS:** A novel instrument for measuring patient benefit of medical devices has been developed. This instrument may be used in health economic assessments of various medical devices used in a wide range of diseases.

**PM170**

HOW FRENCH SUBJECTS DESCRIBE WELL-BEING FROM FOOD AND EATING HABITS: DEVELOPMENT, AND SCORING DEFINITION OF THE WELL-BEING RELATED FOOD QUESTIONNAIRE (WBFQ)

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**OBJECTIVES:** To develop and validate an instrument assessing well-being associated with food and eating habits in a general healthy population, suitable for future food-related health policy support. Providing well-being and maintaining health are two main objectives subjects seek from their diet. To date validated questionnaires measuring well-being in the specific context of food in general population do not exist. **METHODS:** A web-based survey was conducted with healthy subjects (n=102) and subjects with digestive, joint or immunity complaints (n=96) served to develop the core of the Well-Being Related to Food Questionnaire (WBF-Q). Preliminary validation was conducted with 444 subjects with balanced diet (n=81), non-balanced diet (n=65), or standard diet (n=298). Principal component analyses (PCA) and exploratory factor analyses were performed recursively to sequentially reduce the number of items and determine the questionnaire structure. Confirmatory factor analyses with multiple imputations were conducted to confirm the questionnaire structure. **RESULTS:** The validated structure of the WBF-Q has a modular backbone composed of “Grocery shopping”, “Cooking”, “Dining places”, “Commenability”, “Eating and drinking” and “Dining environments". Each module is measured in terms of food behaviour and benefits: immediate (Pleasure, Security, and Relaxation); direct and short term (Diet, Health, and Energy); and long term (Quality of Life, Social acceptance). The WBF-Q is therefore an instrument to assess the full picture of well-being related to food and eating habits in terms of immediate, direct and short and deferred benefits in general population. Its modular structure allows interdisciplinary users to address their specific research (including experimental and external comparison studies) needs by selecting the module(s) relevant to their objectives.

**PM171**

MEASURING PREFERENCE-BASED PATIENT BENEFIT OF MEDICAL DEVICES: A NEW INSTRUMENT FOR HEALTH ECONOMIC ASSESSMENTS

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**OBJECTIVES:** A novel instrument including 24 general attributes related to patient’s perceived benefit of medical devices within the following domains: sense of security, social participation, integrity, convenience and useability. Preliminary results indicate that the attributes with highest preference concern reliability, and sense of control of the disease/disability. Facilitation of overnight travelling and storage convenience are considered less important. Attributes concerning social acceptability are of higher importance to younger than to older persons, while simplicity in using the device is more important to older persons. **CONCLUSIONS:** A novel instrument for measuring patient benefit of medical devices has been developed. This instrument may be used in health economic assessments of various medical devices used in a wide range of diseases.

**PM172**

MODELLING METHODS FOR EQ-5D – A FITTING TIME FOR CHANGE

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**OBJECTIVES:** Over recent years, EQ-5D has only in recent times been subjected to fresh consideration, mainly driven by the introduction of EQ-5D-5L. However, methods in relation to modelling of health states not directly valued have undergone less change. This work uses the Irish 3L data and explored new valuation methods in relation to modelling of health states.
We have applied an interval regression model to ensure that the results take into account the uncertainty. Further work will explore latent variable mod- els to identify subgroups of respondents within the dataset. A reference group can then be identified, rather than excluding respondents according to arbitrary decision rules. RESULTS: A latent variable approach was found to accommodate heterogeneity inherent in the impact of the treatment on several endpoints in two randomized controlled trials to medians (which might otherwise be expected to fulfill a similar role). Interval regression (both log-normalised and otherwise) appears to have only had a small impact on the results. Conclusions: We re-examined our interval regression analysis with the original dataset to implement a model that allows for the inclusion of the uncertainty associated with the estimates. Further, we have compared the results with those obtained from a latent variable model that allows for the inclusion of the uncertainty associated with the estimates. We conclude that the latent variable model provides a more accurate estimate of the effect of the treatment on the endpoint.

PM173 DEVELOPMENT OF A DISCRETE CHOICE EXPERIMENT TO ASSESS PATIENTS’ AND RELATIVES’ PREFERENCES FOR HOME ENTERAL NUTRITION

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OBJECTIVES: The aim of this study is to develop a discrete choice experiment according to the conjoint-analysis systematic development procedures that would allow the assessment of patients’ and relatives’ preferences for the evaluation of home enteral nutrition (HEN) via tube feeding, and the concordance of answers between patients and their caregivers in Spain. METHODS: Different attributes and levels were embedded in the published literature and presented to three focus groups formed by patients receiving HEN (n=5) and HEN experts (n=6). Both groups were asked to identify which attributes and levels were relevant when choosing a HEN product, according to their personal or professional experience. In addition, the focal group identified the completeness of the draft questionnaire if the study aims to be intelligible for other patients. A fractional factorial analysis using the support.CEs package for the statistical software R was performed to define the scenarios that would be used on the questionnaire. RESULTS: From all the characteristics presented to focal groups, participants identified 6 attributes as relevant, including 2 levels each: TOLERANCE (easily/hardly tolerable), ADAPTATION TO COMORBIDITIES (adapt- able/not adaptable to other present comorbidities), NUTRIENTS AND CALORIES (pro- vides not provides nutrients and calories needed by the patient). CONTAINER CHARACTERISTICS (its characteristics make easier/harder to handle the packaging), CONNECTIONS BETWEEN THE CONTAINER AND THE FEEDING TUBE (product connections are easy/hard to perform) and INFORMATION (the container includes/does not include information about the nutrient composition and branding). From the 64 possible scenarios, the fractional factorial analysis generated 8 sets of choices that fulfilled the properties of orthogonality and balance. CONCLUSIONS: The first steps of the DCE package were presented to patients, in order to allow the evaluation of the final HEN item importance for patients and professionals that later on will produce each scenario utility values.

PM174 MEASURING THE IMPACT OF SECONDARY PROGRESSIVE MULTIPLE SCLEROSIS (SPMS) DISEASE ON THE AASCQ TASCAL: EQUATING THE MSQ-29, MSQS-12, ABLHAN-56 AND SF-36

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OBJECTIVES: AASCQ is a phase 3, randomized, double-blind, placebo-controlled trial assessing whether natalizumab slows disability progression in SPMS. The objective of this study was to carry out an empirical post-hoc analysis of AASCQ blinded baseline data to equate items from the Multiple Sclerosis Walking Scale (MSWS-12), Multiple Sclerosis Impact Scale (MSIS-29), ABLHAN-56, and Short-Form 36 (SF-36) in order to provide a clearer understanding of the relationship between their respective items on “Physical” and “Psychosocial” impact measure- ment continua. METHODS: MSWS-12, MSIS-29, ABLHAN-56, and SF-36 data from 889 patients were combined based on a predefined conceptual frame- work (contrasting broad domains of physical and psychosocial impact). Rasch Measurement Theory (RMT) analyses were performed on the equating item banks using RUMM2020 software to examine: scale-to-scale targeting, item fit, local dependency, and reliability. RESULTS: The ‘Physical’ impact item bank showed adequate scale performance except for some reversed thresholds (5 of 92) and mis- fit (5 of 92 fit residuals, 20 of 92 Chi-square). Relative item locations implied that, in general, lower levels were more rewarding. Correlated regression equations were regressed for the combination followed by upper limit related items; general limitations items tended to sit in the middle of the measurement continuum. The ‘Psychosocial Impact’ item bank showed unacceptably low correlations some misfit (7 of 15 fit residuals, 2 of 15 Chi-square). Relative item locations implied that ‘worries’ and ‘anxieties’ are at the less impacted end of the continuum followed by ‘mood’ and ‘depression’ items. These findings are consistent with clinical expectations. CONCLUSIONS: Psychosocial health questions or item banks proposed have strong measurement properties. However, issues related to response options and item fit still require consideration (in both banks), and coverage could still be improved in the ‘Psychosocial Impact’ equating bank due to the relatively small number of items.

PM175 WHAT DO WE MEAN WHEN WE TALK ABOUT “U.S. SPANISH”?

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1Icon Pic, Oxford, UK, 2Icon Pic, Durham, UK, 3Icon PLC, Oxford, UK

OBJECTIVES: Identify the make-up of the Spanish-speaking population in the United States. METHODS: We investigated the distribution of the population of the United States by country of origin, using 2000 and 2010 Census data. RESULTS: The 2010 census revealed that 16% of the U.S. population were of Hispanic or Latino origin, with 13% of children under five years old speaking a form of Spanish at home. We discussed the use of language data in analyzing the suitability of services. CONCLUSIONS: The Hispanic/a population in the U.S. is only the tip of the iceberg. CONCLUSIONS: We recommend that, during linguistic validation, a specific translation is developed for use in the U.S. by working with linguistic validators from Latin American countries. This will ensure a neutral translation is created that will be acceptable to the diverse range of Spanish-speaking individu- als throughout the U.S.

PM176 DEVELOPMENT OF A PREFERENCE-BASED INSTRUMENT: COMPARED WITH EQ-5D PLUS

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OBJECTIVES: To assess content equivalence and usability between paper and electronic versions of the PSSQoL instrument. RESULTS: We created that will be acceptable to the diverse range of Spanish-speaking individu- als throughout the U.S.

PM177 ASSESSMENT OF CONTENT EQUIVALENCE AND USABILITY BETWEEN THE PAPER AND ELECTRONIC VERSIONS OF THE PSOSIRIUM SYMPTOM AND SIGN DIARY (PSSID) AMONG SUBJECTS WITH PLAQUE PSORIASIS

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OBJECTIVES: To assess content equivalence and usability between paper and electronic versions of the Psoriasis Symptom and Sign Diary (PSSD) on a hand- held (24-hour recall) and tablet (7-day recall) among subjects with plaque psoriasis. METHODS: A cross-sectional, qualitative study was conducted involving one-on-one cognitive and usability interviews in US adults with physician-con- firmed plaque psoriasis. Each participant completed the 24-hour version on paper and handheld and the 7-day version on paper and tablet, before being interviewed. Participants were presented with the paper-based version on the 24-hour recall interviews were conducted in two rounds with revisions made to both devices between rounds. RESULTS: The mean age of sample (N=14) was 51 (range: 32 to 73), 10/14 were female. The majority answered that the paper-based version was more convenient than electronic format. Interviews included increasing the font size and highlighting selected responses. As a result of round 2, font size of the PSSD was increased on the handheld, the tablet was updated to highlight the response selected in a different color, and additional