



ICDAM 2023 POSTER SESSION 1

Poster Session #1

Tuesday, June 27

12:15-14:00

DIETARY ASSESSMENT ACROSS THE LIFESPAN

P1-026 NUTRIDIARY: EXPERT AND LAYMEN EVALUATION OF A SMARTPHONE-BASED WEIGHED DIETARY RECORD APP

Linda Klasen¹, Maïke Elena Schnermann¹, Ute Alexy¹, Johanna Conrad², Stefanie A. J. Koch¹, Ionut Andone³, Ute Nöthlings¹

¹University of Bonn, ²German Nutrition Society (DGE), ³Murmuras GmbH

To test the usability of NutriDiary, a smartphone-based weighed dietary record (WDR), in a German population, an evaluation study was conducted. Participants completed a WDR, entered a dummy meal and answered an evaluation questionnaire. The calculated median system usability scale score of 82.5 (Q1-Q3:70-87.5) indicated good usability and supported its feasibility for use in larger scale studies.

P1-027 FINDING MEASUREMENT NEEDS FOR YOUTH ACTIVE TRAVEL TO SCHOOL IN THE US

Stephanie George¹, David Berrigan¹, Andrew Bremer¹, Van Do²

¹National Institutes of Health, ²FHI 360

Increasing active travel to school (ATS) could reduce the deficit in youth physical activity participation; however, surveillance of ATS is limited in the United States. This abstract offers insights from the National Collaborative on Childhood Obesity Research into strengthening surveillance and data collection of ATS behavior as well as ATS environmental, policy, and program supports.

P1-028 DIGIKOST: A DIGITAL APPLICATION FOR DIET AND LIFESTYLE ASSESSMENT AND BENCHMARKING AGAINST NATIONAL GUIDELINES

Hege Henriksen¹, Monica Carlsen¹, Markus Knudsen¹, Anette Hjartåker¹, Rune Blomhoff¹

¹University of Oslo

We developed and evaluated a new digital short digital semi-quantitative food frequency questionnaire, called DIGIKOST, assessing diet and lifestyle factors according to national guidelines, and that offers an immediate personalized feedback. The DIGIKOST was found to be a reliable and valid tool and feasible in use. The digital tool are available for use in research as well as in the clinic.

P1-029 EATING ARCHITECTURE FROM CHILDHOOD TO ADOLESCENCE

Francisca Ibacache¹, Kaitlin Wade¹, Laura Johnson², Nicholas Timpson¹, Kate Northstone¹

¹University of Bristol, ²NatCen

Eating architecture (EA) refers to the size, timing and frequency of eating. We investigated EA variation from childhood to adolescence (7, 10 and 13y) and its relationship with obesity. EA does not substantially change from 7y to 13y. However, EA variables were highly intercorrelated; therefore, new methods to better model EA are required to unpick relationships with obesity-related phenotypes.

P1-030 ANIMAL-SOURCE ENERGY CONSUMPTION AND ITS ASSOCIATIONS WITH MACRONUTRIENT INTAKE AMONG FINNISH PRESCHOOLERS

Elina Kettunen¹, Topi Hovinen¹, Riitta Freese¹, Majjaliisa Erkkola¹, Anu Suomalainen¹, Liisa Korkalo¹

¹University of Helsinki

Participants in the cross-sectional MIRA2-study were 2-7-year-old children following a vegan (n=29), vegetarian (n=16) or mixed (n=22) diet. From 3-d food record data, we calculated the proportion of animal source energy intake (ASEP). We found overlap between ASEPs of the vegetarian and mixed diet groups and strong correlations of ASEP and macronutrient intakes relevant to cardiovascular health.

- P1-031 THE ELDERLY AS A VULNERABLE GROUP IN DIETARY SHIFTS TOWARDS SUSTAINABLE DIETS: THE CASE OF DIETARY PROTEIN AND AMINO ACID INTAKES**
Niina Kaartinen¹, Meri Simojoki¹, Heli Tapanainen¹, Mirkka Maukonen¹, Liisa Valsta¹, Suvi Itkonen², Anne-Maria Pajari², Satu Männistö¹
¹*Finnish Institute for Health and Welfare*, ²*University of Helsinki*
 The study aimed to model how partial replacement of red and processed meat with legumes or cereals affects population shares below estimated average requirements of protein and indispensable amino acids. Based on the FinDiet 2017 data and usual intake modelling methodology it was found that protein intake in the elderly population warrants further attention in the shift towards plant-based diets.
- P1-032 CHILD DIET RECALL ACCURACY DIFFERS BY SETTING, RECALL TYPE AND GRADE: A PILOT WITH ELEMENTARY SCHOOL CHILDREN IN GRADES 1 AND 3, AND SUMMER CAMPERS IN GRADES 4-6**
 Sina Gallo¹, **Yu-Chen Lin¹**, Suzanne Baxter²
¹*University of Georgia*, ²*University of South Carolina*
 This pilot tested whether asking children to report both food items and amounts eaten [quantified] in a diet recall, vs. reporting only food items [non-quantified], improved reporting accuracy of the lunch meal in two congregate meal settings: elementary school (with children in grades 1 and 3) and summer camp (with children in grades 4, 5, and 6).
- P1-033 DUTCH PEOPLE ARE EATING AND DRINKING MORE HEALTHILY. IMPORTANCE OF REPEATED STANDARDIZED DIETARY SURVEYS**
Caroline Van Rossum¹, Eline Nawijn¹, Ceciel Dinnissen¹, Marja Beukers¹, Henny Brants¹, Martine Jansen¹, Marga Ocké¹
¹*RIVM (Dutch National Institute for Public Health and the Environment)*
 Dutch people are eating more plant products, like fruit and vegetables, unsalted nuts and legumes. They are eating less red/processed meat and also drinking fewer sugary drinks. However, most Dutch people are not following the dietary guidelines yet. Based on repeated standardized measurements, it was possible to get insight in dietary trends which are of importance for policy makers.
- P1-034 DOES SUPPLEMENT USE PUSH DIETARY INTAKES BEYOND THE UPPER INTAKE (UL) LEVELS - PERSPECTIVES TO UNDER-REPORTING AND SOCIOECONOMIC GROUP DIFFERENCES**
Heli Tapanainen¹, Laura Sares-Jäske¹, Laura Paalanen¹, Niina Kaartinen¹, Liisa Valsta¹
¹*Finnish Institute for Health and Welfare*
 We studied whether the total intake, considering food supplements (FS), elevates intakes over the upper intake levels when taking under-reporting (UR) into account. Using the FinDiet 2017 Survey data and the SPADE method to model usual intake, we found that both FS use and energy UR, but also SES group differences, are important factors to consider when studying excessive nutrient intake.
- P1-035 EXPLORING SLEEP METRICS OVER THE COURSE OF A YEAR FOR CHILDREN IN THE GUELPH FAMILY HEALTH STUDY (GFHS)**
Katarina Osojnicki¹, Hannah Coyle-Asbil¹, Becky Breau¹, Jess Haines¹, David Ma¹, Andrea Buchholz¹, Lori Ann Vallis¹
¹*University of Guelph*
 The purpose of this study was to determine how sleep of children aged 1.5-5 years changes over a year. Findings indicate improvements including rise times significantly later at 1-year (1Y) compared to 6-months (6M). Sleep efficiency and total sleep time were significantly improved at 1Y compared to 6M and baseline and wake after sleep onset was significantly reduced at 1Y compared to 6M and BL.
- P1-036 THE ASSOCIATION OF HIGHLY PROCESSED FOOD CONSUMPTION WITH FOOD CHOICE VALUES AND FOOD LITERACY IN JAPANESE ADULTS: A NATIONWIDE CROSS-SECTIONAL STUDY**
Nana Shinozaki¹, Kentaro Murakami¹, Xiaoyi Yuan², Ryoko Tajima², Mai Matsumoto², Keiko Asakura³, Shizuko Masayasu⁴, Satoshi Sasaki¹
¹*The University of Tokyo*, ²*National Institute of Biomedical Innovation, Health and Nutrition*, ³*Toho University*, ⁴*Ikurien-naka*
 This cross-sectional questionnaire study explored the link between highly processed food (HPF) consumption and food choice values and food literacy in 2232 Japanese adults. Several aspects of food choice values and food literacy, such as safety and satiety responsiveness, were associated with HPF consumption, and these aspects differed between males and females.

- P1-037 USE OF SUGAR AND SWEETENER AS AN ADDITIONAL ITEM ACCORDING TO SOCIOECONOMIC, DEMOGRAPHIC AND NUTRITIONAL STATUS IN BRAZIL**
Maria Eliza de Mattos Tobler Mastrangelo¹, Marina Campos Araujo², Maria Beatriz Trindade de Castro¹
¹Federal University of Rio de Janeiro, ²Sergio Arouca National School of Public Health
 Study results showed a relationship between social and demographic parameters and use of sugar and sweetener. In addition, it was observed an inverse association between income and education with sugar and a direct association between income and education with sweeteners. Found results provided information that can contribute with strategies to support public policies that promote healthy eating.
- P1-038 GLYCEMIC INDEX OF BREAKFAST OF PREGNANT WOMEN WITH GESTATIONAL DIABETES MELLITUS ESTIMATED FROM CAPILLARY GLYCEMIA**
Camilla Rocha¹, Thainá Calderoni¹, Karolyne Torres², Michelle Teixeira¹, Valeria Braulio², Jane C Capelli², Fávia Lima², Monica Carvalho²
¹Federal University of State of Rio de Janeiro, ²Federal University of Rio de Janeiro
 Low glycemic index (GI) foods intake can help control Gestational Diabetes Mellitus (GDM). The evaluating effects of GI from isolated food on daily life is a challenge. The study pretend develop an estimating protocol for breakfast GI of pregnant women diagnosed with GDM. GI was influenced positively by all macronutrients, on average. GI of meals nedeeding be rethanked.
- P1-039 MICRONUTRIENT QUALITY VARIES BY LIFE STAGE AMONG THE U.S. POPULATION, NHANES 2015-2018**
 Alexandra Cowan¹, Regan Bailey¹, **Janet Tooze²**
¹Texas A&M AgriLife Research, ²Wake Forest University School of Medicine
 The Total Nutrient Index (TNI), a micronutrient-based score that evaluates total nutrient exposures from foods/beverages and dietary supplements (DS), was used to examine micronutrient quality of total usual intakes among the U.S. population (>2y) by life stage. Overall, TNI scores varied by life stage and were higher when inclusive of intakes from DS (66.8-77.6), versus foods alone (63.3-75.0).

MACHINE LEARNING AND DATA SCIENCE APPROACHES

- P1-017 TAKEAWAY PIZZA PORTION ESTIMATION WITHIN INTAKE24**
 Kirsty Trigg¹, **Toni Steer¹**, Angela Mulligan¹, Suzanna Abraham¹, Anila Farooq¹, David Collins¹, Jackie Forman¹, Polly Page¹
¹University of Cambridge
 Currently in Intake24, takeaway pizza consumption is quantified using retail images and portion sizes. Research has shown that takeaway pizzas tend to be larger than retail pizzas. The existing approach does not lend itself well to capturing larger takeaway pizza intakes. We propose a new set of images and portion weights for takeaway pizzas, to improve their estimation.
- P1-021 IS CHANGE IN INCLINATION THE DEFINING CHARACTERISTIC OF SLEEP ACTIGRAPHY?**
David Loudon¹, Douglas Maxwell¹
¹PAL Technologies Ltd
 We describe a method for analysing thigh-worn accelerometer data to define periods of stillness using both dynamic accelerations and thigh orientation. This approach involves three stages: identifying static periods, characterising dynamic acceleration periods, and combining these using inclination. These stillness periods could be used to identify key sleep parameters and napping behaviours.
- P1-022 CHILEAN SER24H: A NEW DIETARY SOFTWARE FOR ASSESSING CHILEAN DIETS**
Angela Martinez¹, Natalia Rebolledo², Maria Fernanda Mujica², Marcela Reyes², Camila Corvalán²
¹University of Valparaiso, ²University of Chile
 Softwares processing dietary data can contribute to systematize dietary data collection, but they must consider local food context to be valid. We development a software to collect 24-hour recalls (SER-24H), and document the experience of its use. Additionally, we compare the SER24H and weighed food records (WFR). SER24H is a helpful tool for interviews in Chilean dietary studies.

METHODS DEVELOPMENT AND FEASIBILITY AND VALIDATION RESEARCH

P1-001 DEVELOPMENT OF AN INDEX TO ASSESS ADHERENCE TO THE NORWEGIAN DIETARY GUIDELINES

Torunn Totland¹, Marianne Abel¹, Bente Øvrebø¹, Kristin Holvik¹, Elling Bere¹, Liv Elin Torheim¹, Anne Lise Brantsæter¹

¹Norwegian Institute of Public Health

Guidelines (NDG) was measured by an index constructed by intake frequency of 15 dietary components. Each component was assigned a score of 0-5 or 0-10, adding up to a maximum index score of 100. The index may be used for monitoring trends in adherence to the NDGs, identify target groups for interventions and priorities in public health policies.

P1-002 EVALUATING AND SELECTING AN AUTOMATED 24-HOUR RECALL TOOL FOR THE NEW ZEALAND NUTRITION SURVEY

Berit Follong¹, Sally Mackay¹, Caitlin Haliburton¹, Jacqui Grey¹, Maria Maiquez¹, Cliona Ni Mhurchu¹

¹University of Auckland

Automated 24-hour recalls are commonly used in national nutrition surveys as research suggests that accurate dietary data can be collected while minimising participant burden and survey costs. As many tools exist, a scoping review and comprehensive evaluation were conducted to identify the most suitable tool for use within the New Zealand context.

P1-003 DEVELOPMENT, VALIDATION, AND REPRODUCIBILITY OF FOOD FREQUENCY QUESTIONNAIRE (FFQ) TO ASSESS THE DIETARY INTAKE OF BRUNEI DARUSSALAM ADULTS

Satvinder Kaur Nachatar Singh¹, Syahirah Marshidi¹, Hui Chin Koo², Vaidehi Ulaganathan¹, Munawwarah Tarif³

¹UCSI University, ²Tunku Abdul Rahman University College, ³Ministry of Health, Brunei

This study aimed to develop and validate a food frequency questionnaire (FFQ) for assessing the dietary intake of Brunei adults. The FFQ consisted of 138 food items from 12 food groups, and its validity and reproducibility were tested against a two-day dietary record. The FFQ demonstrated good validity in terms of cross-classification and Bland-Altman plots, and moderate agreement.

P1-004 EATING IN SWEDEN 1: ADAPTATION OF THE SWEDISH NATIONAL DIETARY SURVEY INSTRUMENT (RIKSMATENFLEX) FOR FOODS AND DISHES FROM SYRIA, IRAQ AND SOMALIA

Marlene Lentjes¹, Sarah Lönnström¹, Karin Lobenius Palmér¹, Anna Karin Lindroos², Jessica Petrelius Sipinen², Scott Montgomery¹, Robert Brummer¹

¹Örebro University, ²Swedish National Food Agency

We asked 44 women born in Syria and Iraq and 38 from Somalia to self-administer a web-based 24-hour diet recall (24hDR, by Swedish Food Agency), followed by an interviewed 24hDR to identify culture-specific food items. Self-administration was successful in 30%. Interviewed 24hDR obtained low, but more plausible energy intake and identified 78 culture-specific foods for addition to the food list.

P1-005 EATING IN SWEDEN 2: DIFFERENCES IN MEAL PATTERNS BETWEEN SWEDISH, SYRIAN, IRAQI AND SOMALI-BORN WOMEN LIVING IN SWEDEN ASSESSED USING RIKSMATENFLEX

Marlene Lentjes¹, Sarah Lönnström¹, Karin Lobenius Palmér¹, Anna Karin Lindroos², Jessica Petrelius Sipinen², Robert Brummer¹, Scott Montgomery¹

¹Örebro University, ²Swedish National Food Agency

We included 41 women born in Sweden, 44 born in Syria/Iraq and 38 from Somalia who completed a 24-hour diet recall (24hDR). Median daily energy intake was 7.22, 5.72 and 5.67 MJ respectively. Mealtimes, number of eating occasions and amount of energy consumed at and between meals differed between the groups. Results are important when giving advice about diet and disease management e.g. diabetes.

P1-006 HEALTHY EATING INDEX-2015 SCORES AMONG ADULTS DERIVED FROM OBSERVED VERSUS RECALLED DIETARY INTAKE

Patricia Guenther¹, Carrie Durward², Kevin Dodd³, Nancy Potischman⁴, Thea Zimmerman⁵, Deirdre Douglass⁵, Abiodun Atoloye², Lisa Kahle⁶, Jill Reedy⁷, Sharon Kirkpatrick⁸

¹University of Utah, ²Utah State University, ³U.S. National Cancer Institute, ⁴U.S. National Institutes of Health, ⁵Westat,

⁶Information Management Services, Inc., ⁷US National Cancer Institute, ⁸University of Waterloo

Concordance between Healthy Eating Index (HEI)-2015 scores derived from observed vs. reported intakes by adults was examined. Intake was observed for three meals in one day. The next day participants completed a 24-hour recall that was self-administered, with or without assistance, or interviewer-administered. Differences in HEI-2015 scores derived from observed vs. reported intake were small.

- P1-007** **DIETARY ASSESSMENT IN PERSONALIZED NUTRITION INTERVENTIONS: A SYSTEMATIC REVIEW AND QUALITY ASSESSMENT**
Margaret Allman-Farinelli¹, Tiffany Vuong¹, Brianna Boljevac¹
¹*The University of Sydney*
Precision medicine employs n-of-1 personalized study designs. A systematic literature review located seven such nutrition-related studies and we assessed the quality and type of dietary assessment methods using a modified version of a published tool that scores out of 6. We found most methods were poor (<3) to acceptable (median 3) and were not validated. Thus, conclusions drawn may be unreliable.
- P1-008** **SECULAR TRENDS IN INFANT FEEDING PRACTICES DURING THE FIRST YEAR OF LIFE IN NORWAY: FINDINGS FROM 1998 TO 2019 - THE SPEDKOST SURVEYS**
Anne Lene Kristiansen¹, Jannicke Borch Myhre¹, Mari Mohn Paulsen², Torunn Holm Totland², Britt Lande³, Lene Frost Andersen¹
¹*University of Oslo*, ²*Norwegian Institute of Public Health*, ³*Norwegian Directorate of Public Health*
Aims of the present study were to assess secular trends in breastfeeding and to explore associations between age at introduction of solid foods and breastfeeding cessation. Data from three national dietary surveys in Norway, including infants born in 1998 (Spedkost 1, n = 1537), 2006 (Spedkost 2, n = 1490) and 2018 (Spedkost 3, n = 1831), were used.
- P1-009** **VALIDITY OF THE UPDATED 24-H RECALL SOFTWARE GLOBODIET FOR THE GERMAN NATIONAL NUTRITION MONITORING**
Carolin Krems¹, Friederike Wittig¹, Ann Katrin Engelbert¹, Andrea Strassburg¹
¹*Max Rubner-Institut*
The validity of an updated GloboDiet version for the German National Nutrition Monitoring was examined. Nitrogen intake based on the German Nutrient Database (BLS) 3.02 of 107 adults were compared with nitrogen urinary excretion. Energy intake was compared to total energy expenditure (n = 80). In summary, results suggest a valid recording of food consumption by the German GloboDiet version.
- P1-010** **DEVELOPMENT AND VALIDATION OF A HEALTHY DIETARY DIVERSITY SCORE EASILY IMPLEMENTABLE IN INTERVENTION STUDIES**
Eric Verger¹, Anne-Fleur Jacquemot², Rosalie Pratt³, Rozenn Gazan³, Christophe Dubois⁴, Nicole Darmon⁵, Catherine Feart²
¹*IRD*, ²*INSERM*, ³*MS-Nutrition*, ⁴*Trophis*, ⁵*INRAE*
We developed a healthy dietary diversity score based on the consumption occurrence of 20 food groups in line with French dietary guidelines and easy to implement in intervention studies. Applied to the dietary data of 696 older adults of the latest French dietary survey, the score was independent from energy intake, positively associated with nutrient adequacy and inversely with energy density.
- P1-011** **ADAPTATION AND ALIGNMENT OF AN ECOLOGICAL MOMENTARY DIETARY ASSESSMENT APP TO FACILITATE FOOD INTAKE AND FOOD ENVIRONMENT ASSESSMENT IN GREECE, POLAND, SPAIN, SWITZERLAND, AND THE NETHERLANDS**
Desiree Lucassen¹, Hanne de Jong¹, Noreen Siddiqui², Maria Matias de Pinho³, Edith Feskens¹
¹*Wageningen University and Research*, ²*Amsterdam UMC*, ³*Utrecht University*
Traqq® is an ecological momentary dietary assessment app developed in the Netherlands. Our aim is to adapt Traqq® for food environmental research in other European countries. We will describe the 4-step tailoring process which include: 1) translation of the app; 2) development of a country-specific food list; 3) adaptation of country-specific portion sizes; 4) translation of situational questions.
- P1-012** **PREDICTIVE VALIDITY OF A TWO-QUESTION INSTRUMENT OF GRAZING ON OBESITY AND PSYCHOLOGICAL DISTRESS IN A MIDDLE-INCOME COUNTRY**
Rosely Sichieri¹, Carlos Moraes², Jose Appolinario², Dean Spirou³
¹*Universidade do estado do Rio de Janeiro*, ²*Universidade Federal do Rio de Janeiro*, ³*Western Sydney University*
Grazing is a repetitive consumption of small amounts of food, without hunger, with two subtypes: compulsive (CG) and non-compulsive (NCG). In a survey with 2297 participants, Brazil a two-question instrument estimated CG of 10.2% and NCG 29.8%. CG, but not NCG was associated with obesity compared to no grazing (26.6 vs. 47.5). Odds ratio of anxiety and depression was about 2 for NCG and 8 for CG.

- P1-013 DEVELOPMENT OF THE CC24 A WEB-BASED SELF-ADMINISTERED CLOSED 24-HOUR RECALL TO CAPTURE INTAKE OF FOODS AND BEVERAGES AT THE BRAND LEVEL IN MEXICO**
Carolina Batis¹, Tania Aburto¹, Erick Angulo¹, Zugey Hernández¹, Simón Barquera¹
¹National Institute of Public Health, Mexico
 We developed the CC24 based on the principles of the Oxford WebQ but capturing product brands (n=636) to monitor front-of-package labeling policies. Validation is underway, yet in a web-based cohort the instruments was accepted, completion took 15 min, food groups %kcal was similar to national surveys and the CC24 captured that the mean intake of products with warning labels was three.
- P1-015 SHORT VERSION OF THE ONLINE MEAL-BASED DIET HISTORY QUESTIONNAIRE FOR EVALUATING THE OVERALL DIET QUALITY AND QUALITY OF EACH MEAL TYPE IN JAPANESE ADULTS: A SIMULATED VALIDATION**
Kentaro Murakami¹, Nana Shinozaki¹, Barbara Livingstone², Shizuko Masayasu³, Satoshi Sasaki¹
¹University of Tokyo, ²Ulster University, ³Ikurien-naka
 We recently validated the Online Meal-based Diet History Questionnaire (MDHQ). Here, we simulated the Healthy Eating Index-2015 assessed using a short version of the MDHQ (sMDHQ), including only questions on main meals (breakfast, lunch, and dinner) and alcoholic beverages (85 questions, 39% of the MDHQ), on 222 adults. The results were compared with those obtained from 4-day dietary records.
- P1-016 CHARACTERISING CONFLICTS IN ACTIVITY CLASSIFICATION ACROSS DIFFERENT ACTIVITY MONITORS**
Craig Speirs¹, Malcolm Granat²
¹PAL Technologies Ltd/University of Strathclyde, ²University of Salford
 Differing device placement locations may present issues in ensuring consistent activity classification across different devices. Within a population of older adults we observed a large difference in the pattern of sedentary accumulation, between hip-worn monitors and thigh-worn monitors, across common periods of wear.

PHYSICAL ACTIVITY ACROSS THE LIFESPAN

- P1-024 THE EFFECTS OF TEMPERATURE ON THE USE OF OUTDOOR SPACES FOR PHYSICAL ACTIVITY BY CYCLISTS IN LIMERICK CITY**
Mabliny Thuany Gonzaga Santos¹, Thayse Natacha Gomes¹, Alan Donnelly¹
¹University of Limerick
 We estimated trends in the use of public spaces by cyclists in Limerick and changes in this use due to the temperature in 2019 and 2020. A decline in the use of some routes across the year in 2020, but not in 2019 was shown. Increasing temperature was positive for the use of some spaces. Counters can detect outdoor physical activity and temperature plays a relevant role on the use of the routes.
- P1-025 COMPLIANCE WITH THE 24-HOUR MOVEMENT BEHAVIOR GUIDELINES FOR CHILDREN IN THE GUELPH FAMILY HEALTH STUDY (GFHS)**
Hannah Coyle-Asbil¹, Becky Breau¹, Andrea Buchholz¹, David W.L. Ma¹, Jess Haines¹, Lori Vallis¹
¹University of Guelph
 This study investigated the number of children in the GFHS who met the physical activity, screen and sleep 24-hour movement guidelines. Findings indicate that out of the children with valid data for all three movement behaviours (n=204), 4% (8) met none, 36% (73) met one, 52% (106) met two, and 8% (17) met all three of the guidelines.

STATISTICAL ASPECTS, INCLUDING MEASUREMENT ERROR

- P1-043 MISREPORTING OF ENERGY INTAKE AND BREAKFAST, LUNCH, AND DINNER SKIPPING IN BRAZILIAN ADOLESCENTS: RESULTS OF A NATIONWIDE CROSS-SECTIONAL STUDY**
Tais Lopes¹, Geisa Gabriela Rodrigues¹, Luana Blaudt¹, Luana Monteiro¹, Amanda Souza¹, Rosangela Pereira¹
¹Federal University of Rio de Janeiro
 This study aims to evaluate the association between the main meals skipping according to misreporting (MR) of energy intake of 71,740 students. MR was assessed by Huang et al. The underreporting of energy intake was more prevalent, especially among individuals classified as overweight/obese and those who skipped main meals. MR is one of the main sources of error in assessment of food consumption.

- P1-044** **COMPARISON OF HEALTHY EATING FOOD INDEX (HEFI)-2019 SCORES BASED ON LINEAR AND EXPONENTIAL SCORING FUNCTIONS TO MEASURE ADHERENCE TO CANADA'S FOOD GUIDE 2019 RECOMMENDATIONS AMONG OLDER ADULTS**
Didier Brassard¹, Stéphanie Chevalier¹
¹McGill University
This study compared exponential and linear scoring for the Healthy Eating Food Index (HEFI-2019) using data from Canadian adults aged 65+. Exponential scoring reduced score variability, increased scores for lower percentiles, and had similar internal consistency to linear scoring. The association with protein intake and mean score between smokers and non-smokers were different in magnitude.

TECHNOLOGICAL ADVANCES

- P1-040** **ONLINE 24-HOUR-RECALL TOOL : AN OPTIMISED USER JOURNEY COMBINING DATA RELIABILITY AND USER-FRIENDLINESS**
Sandrine Carrillo¹, François Ciric¹, Carine Dubuisson¹
¹French Agency for Food, Environmental and Occupational Health & Safety
Dietary collection tools must rely on technological advances to optimise their ergonomics and ensure data quality. For the R24-hour tool of the next French consumption survey, an inventory of existing tools followed by real-life testings led to designing an optimized user journey. Keeping the strengths and improving the weaknesses of the tested tools, it sets the specifications for developments.
- P1-041** **MEASURING DIET INTAKE IN HEALTHY ADOLESCENTS: RELATIVE VALIDATION OF AN ARTIFICIAL INTELLIGENCE-ENHANCED, IMAGE-ASSISTED MOBILE APPLICATION IN THE CHILD COHORT STUDY**
Kozeta Miliku¹, Audrey Moyen², Antonio Rossi¹, Anne-Julie Tessier³, Michelle Helm⁴, Elinor Simons⁵, Meghan Azad⁵, Piushkumar Mandhane⁶, Stuart Turvey⁷, Theo Moraes⁸, Padmaja Subbarao⁸
¹University of Toronto, ²McGill University, ³Harvard School of Public Health, ⁴McMaster University, ⁵University of Manitoba, ⁶University of Alberta, ⁷University of British Columbia, ⁸University of Toronto; Hospital for Sick Children
Understanding dietary intake inadequacies can help in mapping nutritional interventions for primary prevention. Image-assisted methods can increase compliance with reporting diet, allow remote data collection and reduce the time burden. We aim to validate the performance of a food tracker mobile app vs. the validated ASA24 recall web-based platform among Canadian adolescents.
- P1-042** **A COMPARISON OF TRADITIONAL DIETARY DATA COLLECTION FORMATS WITH A SMARTPHONE APPLICATION (MYFITNESSPAL) IN THE ESTIMATION OF ENERGY AND MACRONUTRIENT INTAKES IN COLLEGIATE ATHLETES**
Catherine Norton¹, Brian Carson¹
¹University of Limerick
New technologies may increase both the acceptability to participants and the accuracy of dietary assessment, by automatic estimation of portions, use of barcode scanners and digital images to estimate portions. MyFitnessPal should be considered for use in dietary assessment due to the reduction in burden for participants and practitioners, and good agreement with analyses using gold-standards.