

Results A total of 422 parents participated in this study. 19% of parents reported that their children consumed at least four servings of F&V per day. No statistically significant difference was observed in parental attitudes across children's vegetable consumption levels. A significant difference ($p = 0.004$) in the importance of fruit in children's diets across consumption levels was observed. 91% of parents whose children consumed F&V less than daily agreed with the statement that 'It is important to me that my child eats fruit', compared to 100% of parents whose children consumed at least four servings of F&V per day.

Conclusion In this study, most primary school children did not eat the recommended daily servings of F&V. Although one difference was observed in the importance of fruit in children's diets across consumption levels, parental attitudes towards vegetables did not influence children's intake. Therefore, future analysis should consider other parental factors that may influence child F&V intake levels, including food availability and parental consumption.

Health systems

12 DEVELOPMENT OF A SCREENING ETOOL FOR PRE-DIABETES AMONG KAZAKH POPULATION AND ITS APPLICATIONS: PERSPECTIVES FROM MEDICAL DOCTORS

Arailym Yeltay, Antonio Sarria- Santa, and Mei-Yen Chan. *Nazarbayev University, Kazakhstan*

10.1136/bmjnph-2023-nnedprosummit2022.15

Background Diabetes is identified as one of the most important healthcare challenges for many countries. The high prevalence of prediabetes with its long asymptomatic phase of the disease are strong arguments for screening. Currently, such tool is not routinely used in the clinical settings in Kazakhstan.

Objectives We developed a screening tool for prediabetes among Kazakh population. This screening tool includes family history, dietary and other lifestyle risk factors. The aim of this pilot project is to gather feedback and comments from doctors about the application of this new tool.

Methods Based on qualitative methods, semi-structured interviews were conducted with 9 doctors. Participants were purposively selected based on their roles and clinical experience in diabetes management.

Results All the respondents agreed that using screening tool at the early stage will be a useful healthcare intervention strategies. Cost-effectiveness was one of reasons suggested for using screening tools. Participants discussed each part of the screening tool which was included in the questionnaire, assessed their importance and applicability. Some of the health professionals in our study noted some barriers to developmental tool in general, which included difficulties with interpretation and self-management.

Conclusions Based on the findings, the new tool will be potentially useful as a diagnostic tool at the early stage, allowing individuals with undiagnosed diabetes to seek timely medical care.

Health systems; food systems

13 AI APPLICATIONS FOR DIETARY INTERVENTIONS: PERSPECTIVES FROM EAST & CENTRAL ASIA

Aknur Karabay, Huseyin Atakan Varol, Mei-Yen Chan. *Nazarbayev University, Kazakhstan*

10.1136/bmjnph-2023-nnedprosummit2022.16

Background Assessment of dietary intakes is notoriously laborious and generates information that requires a lot of effort in coding and subsequent analysis. Furthermore, keeping track of the everyday diet via taking photos of the meals might enhance the accuracy of the dietary assessment and reduce reporting and recall biases. Currently, Computer Vision (CV), which is a subfield of Artificial Intelligence (AI) is being utilized for various applications in food recognition such as *smart* restaurants, supermarkets, and nutritional assessment to increase social awareness of a healthy lifestyle. Thus, information mined from *food images using CV could have considerable potential in dietary interventions.*

Objectives The overarching project aims to apply CV techniques to identify main dietary factors in association with corresponding cardio-metabolic factors in Kazakhstan. In order to achieve this, we have to first develop a model for detecting and identifying food items unique to local Central Asian cuisine. We will then apply transfer learning from pre-trained food classification models to our custom dataset. Further, we will link the nutritional content to the food classes, such that the model will provide the assessment based on the longitudinal dietary patterns.

Methods A Telegram Bot was created to collect food images unique to Central Asia as well as other dietary and lifestyle factors. For each food class, approximately 1,000 images are to be collected and annotated. In the case of rare food items, data augmentation techniques will be applied.

Results To date, we have collected images for about 8 classes of foods and 2 classes of beverages unique to Kazakhstan. More than 4,000 images have been collected and annotated. While the rest of the classes are being pre-processed, we are now performing parametric experiments with EfficientNet and ResNet deep learning models. Further details will be provided during the presentation.

Conclusions The creation of the Central Asia food datasets will help to better explore and examine the dietary patterns which will allow researchers to conduct both nutrition and dietary surveillance in a more effective manner.

Practical implementation

14 A BASIC NUTRITION CURRICULUM FOR ALL: CASE STUDY OF RURAL WOMEN, BASSI PATHANA, PUNJAB (INDIA)

Ramanjit Kaur Johal, Amanjot Kaur. *Panjab University, Chandigarh, India*

10.1136/bmjnph-2023-nnedprosummit2022.17

Background Good health and wellbeing is closely associated with nutritional food intake and healthy eating habits; this

awareness and practice makes for a healthy work force. Punjab, known as the food basket of India, ironically, suffers the prevalence of 'malnutrition'. This, especially among rural women, is primarily due to lack of nutritional awareness and education. With this premise, a Basic Nutrition Curriculum Development intervention was conducted with rural women in Punjab.

Methodology The nutrition intervention involved 35 trainees pursuing beauty care and stitching training at a charitable trust (MBCT). A 10 sessions' curriculum @2.5 hours each was delivered on a weekly basis and documented using pre and post sessions' questionnaires (Knowledge, Attitude, Practices methodology). A Review was undertaken after three months of the completion of the intervention. Participatory activity-based pedagogy using audio-visual aids and live demonstrations were used. Select ingredients were also given to the trainees.

Results Significant post-attendance changes were observed in the trainees. They had gained awareness about basic food groups, the balanced food platter etc. Notable changes in their daily eating habits – eating at the right time, appropriate water consumption, including different food sources in diet were observed. The intervention also made the respondents rethink their assumptions based on customary beliefs and practices. Mindfulness of cooking practices and use of appropriate quantity of cooking oil was observed. Importantly, awareness about causes and symptoms of nutrition related deficiencies and appropriate foods to overcome them was also noted. The trainees also gained confidence to discuss their health problems with family. Knowledge sharing with peer group and family members was also observed as trainees used the recipe book containing dishes prepared during the training.

Way forward The aim is to advocate the Basic Nutrition Curriculum's adoption gender-neutrally as a compulsory component in all Skill Development Programmes run by government, non-government (NGOs) and private institutions under the Punjab Skill Development Mission.

15 REDESIGNING ONLINE RESTAURANT SURVEYS FOR ASSESSMENT OF NEW NUTRITION DATA AND MARKETING NUTRITION

Jaroslav Guzanic. *Swiss Association for Cooperation on Food Education, Chefs' Manifesto Switzerland*

10.1136/bmjnph-2023-nnedprosummit2022.18

Background As COVID-19 restrictions have begun to relax in many parts of the world, the global demand for restaurant food has been on a rise. Following this trend, there was an appropriate time to collect new feedback from customers.

Objectives The purpose of this survey was to examine and report associations between the nutrition attitudes, food choices and preferences, and consumer demands.

Methods The survey was conducted in October of 2021 and took until March 2022. Online questionnaires were distributed to 252 customers. The questions were divided in four main categories: general questions, customer service, food and beverage quality, food choices and preferences. The questionnaires were disseminated through social media channels and by e-mail. The respondents were also enabled to interact directly with the restaurant culinary chef.

Results 81% of guests usually consumed a three-course menu, including a starter, main and dessert. Personal preferences and

wishes to change menu items/sides were detected by 86%. Generally, 92% of the asked were interested in cooking restaurant food menus at home. An interest in hiring a personal chef to learn new recipes and techniques was shown in 83% of the participants and 95% were interested in exploring new ingredients and food pairing combinations. There was an increased number of customers with dietary restrictions and health conditions by 56% of respondents. 68% reported to have developed a newfound passion for cooking. Different understanding and interpretation of plant-based diets was perceived among 73%. Finally, there was a significant improvement of cooking skills after online interaction and communication with a chef, reported by 93% of survey participants.

Conclusion In the last few months, part of the resilience stage for many hospitality facilities, restaurants have been changing their culinary philosophy and business strategy. This survey shows a significant improvement of cooking skills among guests/consumers after having communicated with a restaurant chef online, primarily achieving better outcomes in preparation of sauces, creating textures, baking healthier desserts, breads and improving presentation skills and plating techniques.

Acknowledgments Other contributors include the management team of Hotel Hirschen in Sursee, the canton of Lucerne, Switzerland. Swiss Society for Nutrition, Swiss Association for Cooperation on Nutrition Education, Hotellerie Suisse.

16 NUTRITIONAL STATUS OF THE HEALTH CARE WORKERS FROM URBAN BANGALORE CITY HOSPITALS

Pallavi Bardhar, Rani Ravindra. *IGNOU, Bangalore, Karnataka, India*

10.1136/bmjnph-2023-nnedprosummit2022.19

Introduction Health care worker's job accountability may influence their ability to maintain healthy lifestyle and dietary habits. Therefore, there is a need to address health issues among health care workers (HCW).

Methods Based on quota system, from the urban hospitals of Bangalore city (Karnataka) India, (205) subjects were selected. Professional classification was followed as suggested by WHO, (2020). Self-reported height and weight was noted. Calculated BMI was classified as per WHO, (2020) and compared with macro and micronutrient intake (calculated using 2 day 24 hour dietary recall method), Mean Adequacy Ratio (MAR), Nutritional Adequacy Ratio (NAR), physical activity, stress and sleep pattern.

Results Current study included, 74(36.07%) doctors, 97 (47.32%) nurses and 34 (16.5%) paramedical staff. BMI classification shown more male doctors 15(39.5%) and lesser 5 (13.9%) overweight females. Only 4(11.1%) were female obese consumed (179.19±44.91gm/day) carbohydrates and 2 (5.3%) obese male doctors, consumed more carbohydrates (213.02±38.9gm/day) and less physically active (P < 0.001). Among female nurses 23(25.8%) were overweight, consumed 45.05±10.08gm protein per day. Only 10(11.24%) female nurses were obese but more obese males consumed 49.56 ±11.41gm/day and energy intake as 178 kcal/per day. Increase in number of working hours among nurses (8 to 10 hours/day), significantly raised stress level (r = 5.996, P =0.05). NAR micronutrient intake showed (70%) were 'inadequate' to "fairly adequate" for calcium, iron and vitamin B12. The Mean Adequacy Ratio (MAR) 82.18% and 44.62%