

and increased medical expenses. Malnutrition screening and optimal management improve patients prognosis. In diagnosis related group based health care systems, malnutrition coding should allow reimbursement of medical resources. The aim of this study was to screen for malnutrition in hospitalized children, initiate treatment and to code all cases of malnutrition in order to evaluate the economic impact of such practices.

**Methods:** This prospective study was conducted by a nutrition support team (NST) during three months in 2009 in two pediatric wards of a tertiary care hospital whose malnutrition coding in 2008 was 2% and 0% of stays respectively. A dietitian collected anthropometric data, growth curves, clinical history of consecutively admitted children and each case was reviewed by the NST physician to assess the nutritional status, initiate nutritional management and code as appropriate according to the international classification of disease – 10<sup>th</sup> version. The economic impact for hospital reimbursement was then calculated.

**Results:** 348 children were studied. Malnutrition prevalence was 20% and obesity prevalence was 9%.

	Malnutrition		
	Mild	Moderate	Severe
Orthopedics	34	14	3
Neurology	9	5	3
<b>Total</b>	<b>43 (63%)</b>	<b>19 (28%)</b>	<b>6 (9%)</b>

The coding of all 68 malnutrition cases led to an increase of 127 745 Euros in reimbursement to the hospital.

**Conclusion:** This study confirms there is still a high prevalence of malnutrition in hospitalized children. Nutritional assessment and appropriate management by NST allows coding of malnutrition and leads to considerable reimbursement for hospitals. Screening, management and coding of malnutrition by specialized nutrition teams should be encouraged and developed to improve patient care and cost effectiveness.

**Disclosure of Interest:** None declared

#### PP148

##### THE PROTECTIVE ROLE OF BLACK BEANS AND FRUITS CONSUMPTION ON ASTHMA IN A LOW-INCOME PEDIATRIC POPULATION FROM SOUTHERN BRAZIL

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**Rationale:** The role of diet factors as risk for asthma has been studied in more affluent populations, but is largely unknown in low-income communities with high asthma prevalence. We investigate the relationship between obesity and food intake with asthma in a pediatric population from a disadvantaged community in Southern Brazil.

**Methods:** A cross-sectional study with children aged 9 to 13 years old, selected from a population participating in

the ISAAC II Study. Asthma and asthma-related symptoms were assessed with a standardized questionnaire and atopy by skin prick tests. Body mass index were used for assessing obesity. A food frequency questionnaire was used to evaluate the diet. Associations between outcomes and nutritional factors were evaluated using logistic regression.

**Results:** From 949 children, 12% had active asthma and among those 16% were atopic. Overweight was not associated with asthma or with asthma-related symptoms. Greater intake of fruits was protective for severe asthma (OR=0.53, 95% CI 0.34–0.82), and marginally protective for active asthma (OR=0.68, 95% CI 0.46–1.0). Regular intake of black beans was protective for individuals with severe asthma (OR=0.33, 95% CI 0.16–0.64). Fruit consumption was protective for subjects with atopic asthma (OR=0.35, 95% CI 0.13–0.93) but not for non-atopic asthmatics. The consumption of black beans was protective for non-atopic asthmatics (OR=0.35, 95% CI 0.16–0.78) but not for atopic asthmatics. Usual consumption of dairy products was associated with increased risk of wheezing among atopic children (OR=2.69, 95% CI 1.04–1.96).

**Conclusion:** Dietary components may affect asthma phenotypes in childhood. In a low-income population, usual intake of fruits was protective for severe asthma and for atopic asthma. Usual intake of black beans was protective for individuals with severe asthma and for non-atopic asthmatics.

**Disclosure of Interest:** None declared

#### PP149

#### Outstanding abstract

##### RELATIONSHIP BETWEEN DIETARY INGESTION OF PHOTOPROTECTIVE NUTRIENTS AND SKIN REACTIVITY TO THE SUNLIGHT AMONG SUMMER VACATIONERS IN SOUTHERN BRAZIL

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**Rationale:** Dietary photoprotection consists on the activation of the endogenous system against ultraviolet (UV) sun radiation, mediated through the dietary intake of photoprotective nutrients. This study was aimed to relate the consumption of dietary photoprotective foods with skin reactivity to the sun exposure in individuals vacationing in Southern Brazil.

**Methods:** A cross-sectional study with summer vacationers in Xangri-lá Beach (Rio Grande do Sul, Brazil) in 2009 summer. Frequency [F] e Quantity [Q] of dietary intake of photoprotective nutrients in food sources was assessed through the Food Frequency Questionnaire (FFQ). Skin reactivity was self-reported according to the Fitzpatrick scale. Body Mass Index (BMI) was calculated to adjust for confounding factors. Associations between outcomes and nutritional factors were evaluated using logistic regression.

**Results:** From 212 individuals (mean age 48 years old) most were women (71.7%). Among individuals with