

The psychological symptoms of anxiety were encountered in 57 (55.8%) participants with IBS, among which, male were 15.7% and female 84.2% respectively.

**Conclusion** The medical students of Karachi who suffered more mental stress and anxiety resulted in a high level IBS as compared with previous study reports. There were significantly more women with IBS than men. As a consequence, key health messages and interventions to reduce stress and anxiety among students may help in curtailing the burden of this disease.

#### SP4-11 METABOLIC PROFILE INFLUENCE ON HbA1C IN DIAGNOSING DIABETES MELLITUS

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**Aims** To evaluate the optimum HbA1c cut-off for lowering number of people with undiagnosed type 2 diabetes mellitus (T2DM).

**Materials and Methods** Population-based screening for glucose metabolism impairments (GMI) among 661 adults in Moscow Country was conducted in 2009. HbA1c was determined in 39 subjects with GMI. T2DM was diagnosed according to WHO 1999 criteria. Receiver operating characteristics (ROC) analysis was performed to assess best predictive cut-off HbA1c for diagnosing T2DM.

**Results** Based on OGTT and HbA1c, 15% and 28% people had T2DM. Area under ROC curve (AUROC) was 0.727 (95% CI 0.490 to 0.964,  $p=0.080$ , sensitivity 66.7%, specificity 78.8%) using HbA1c cut-off  $>6.5\%$ . Best predictive HbA1c in this cohort was 6.3% (AUROC 0.750,  $p=0.054$ , sensitivity 83%, specificity 67%). 33.0% of undiagnosed T2DM had HbA1c levels  $<6.5\%$  (95% CI 0% to 71%) and 17% (95% CI 0% to 45%) of people with T2DM had HbA1c levels  $<6.3\%$ . Subjects with false negative HbA1c were predominantly with normal BMI ( $21.8+1.6$  vs  $42.9+7.8$ ,  $p=0.025$ ), false positives were predominantly with higher BMI ( $30.6+7.8$  vs  $28.4+5.9$ ,  $p=0.273$ ). In normal weight (BMI 18–25) individuals optimal HbA1c cut-point for detecting T2DM was  $>6.0\%$  (AUROC 0.750, sensitivity 50%, specificity 100%). RR of T2DM was 7 (1.18–42.9) with HbA1c values 6.0–6.4%, than those with  $<6.0$  in normal weight individuals.

**Conclusion** Choosing the HbA1c strategy rather than the OGTT strategy leads to diagnose more diabetes, although the consistency of both diagnostic criteria is low. The optimal HbA1c cut-point to detect T2DM was lower than HbA1c of 6.5% in normal weight individuals.

#### SP4-12 HOW "HEALTHY" ARE THE CLIMATE CHANGE CONFERENCES?

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Since the first UN Conference on Human Environment held in Stockholm in 1972, up to COP16 numerous international conferences have been organised by UNEP, WMO, IPCC, AsDB/AfDB, UNDP, World Bank and of course UNFCCC. All of these prescribed economic development as the gateway to adaptation to and mitigation of emission of green house gases and global warming. Attention has been given to agriculture, fishery, topography, geography, land quality, tourism, livelihood, water resources management, waste management, forestry, environmental sanitation, public education, training, human resource development etc.;

while health or disease were mentioned barely and episodically, to be forgotten in between. That health is the centre piece of development has not dawned upon. The drafters of resolutions and conference records, seems, never included any public health expert or epidemiologist. This has prompted Africa, South Asia, South East Asia, the Far East and the Pacific rim countries to request UNFCCC to accord due importance to health as a key element of adaptation to climate change. Based on a study of the relevant documents on climate change (referred to in the main paper), which evidently side tracked health as an issue of sufficient importance, we suggest that: (1) a monograph be produced by the UNFCCC on the merits and ranges of the impacts of climate change on health and disease; (2) due importance be given to health in the "negotiating document" of UNFCCC; and (3) public health experts and epidemiologist are included in the different committees of UNFCCC and GEF.

#### SP4-13 DIFFERENCES IN CHILDREN'S AND ADULTS VULNERABILITY TO AIR AND WATER POLLUTION

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**Objective** To discuss the differential susceptibility of children to environmental exposures using mortality rates for children and adults for infectious respiratory and gastrointestinal problems.

**Materials and Methods** We conducted an ecological study. We examined the trend in mortality rate from acute respiratory infections and acute diarrhoeal diseases and compared this with the consumption of chlorofluorocarbons—CFCs (air pollutant) and coverage of sewage services in Brazil. We used the polynomial regression model for assessment of trends, which were compared according to age categories with air pollution or water pollution proxy).

**Results** The consumption of CFCs was associated with increased mortality from the respiratory infection Agura. Increased sewage service coverage was associated with reduced mortality. This relationship was more pronounced in children than in adults.

**Conclusion** This new knowledge about children and susceptibility to environmental agents will help to identify subgroups and allow age sensitive planning of preventive actions.

#### SP4-14 PASSIVE SMOKING IN BRAZIL: RESULTS FROM THE SPECIAL RESEARCH ON SMOKING 2008

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**Introduction** Passive smoking has been linked to an increased morbidity risk, mainly by cardiovascular and respiratory diseases. This is first Brazilian nationwide study that describes indoor passive smoking, at home and at work, among participants (15+ years) of the "Special Research on Smoking," a sub-sample of the PNAD2008, a representative national home survey.

**Methods** Non-smokers who reported exposure to indoor household smoking were classified as daily or occasional passive smokers, based on the frequency of exposure. People with indoor occupations, who were non-smoker and reported exposure to smoking during their work journey were classified as worksite passive smokers. Associations with socio-demographic factors were verified by logistic regression analysis.