7. POSTER PRESENTATIONS: ABSTRACTS
Child and adolescent health

Prevalence of insomnia among Portuguese adolescents
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Background
Insomnia is the most common sleep disorder. The aim of this study was to quantify the prevalence of insomnia and analyse their determinants in Portuguese adolescents.

Methods
In a cross-sectional study, we evaluated 1974 students aged 12- to 18-years old, from nine secondary schools of the district of Viseu. The information was collected using the self-administered questionnaire, answered in the classroom. The final sample was constituted of 1965 adolescents, (59.3% female sex). According to the DSM-IV insomnia was defined as the presence of one or more of the following symptoms: difficulty initiating or maintaining sleep, early morning awakening or non-restorative sleep that lasts for a period of 1 month or longer at least three times per week. The prevalence was expressed in proportions with 95% confidence intervals (CI), compared by the chi-square test.

Results
The last month prevalence of insomnia was 29.0%, higher in female sex (34.5 vs. 19.9%, $P < 0.01$). The prevalence of difficulty initiating sleep, difficulty maintaining sleep, early morning awakening with difficulty getting back to sleep and non-restorative sleep was 11.6, 8.3, 9.6 and 7.6%, respectively, significantly higher among female sex ($P < 0.01$). Insomnia was associated with sex (female OR = 2.1, 95% CI 1.6–2.8), age (>15 years OR = 1.4, 95% CI 1.0–1.9), parental education (>9 years, OR = 1.5, 95% CI 1.1–1.9), father's marital status (married OR = 0.6 95% CI 0.4–0.9), coffee consumption (OR = 1.5 95% CI 1.2–2.0), overweight/obesity (body mass index$\geq$25 kg m^{-2} OR = 2.1 95% CI 1.1–4.0), go out at night (OR = 2.2 95% CI 1.2–4.2), presence of TV in room (OR = 1.2 95% CI 1.0–1.6) and depression (OR = 3.6 95% CI 2.8–4.8). No statistically significant association was found between insomnia and residence area, alcohol consumption, smoking habits and sports practice.

Conclusions
Insomnia in Portuguese adolescents is common and is associated with multiple factors. The results support a preventive program for a insomnia in adolescents in order to implement measures to promote health and sleep hygiene.

Teachers' views about health and health education in 15 countries
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Health education in schools has been implemented through a diversity of strategies, depending on the concept of health and of health education. Classically, health education has provided mainly factual knowledge about diseases and their prevention, assuming the person as being healthy if the body components are working properly. In contrast to this biomedical (B-M) view of health, the biopsychosocial model (BPS-M) embraces a holistic view of health. This work intends to analyse and compare teachers' conceptions about health and health education from 15 countries. These countries differ in their geographical distribution and their historical, political and socio-cultural development: three in North Europe (Finland, Estonia, Hungary), five in South Europe (Portugal, France, Italy, Romania, Cyprus), three in North Africa (Morocco, Algeria, Tunisia), two in Sub-Saharan Africa (Senegal, Burkina Faso), one in the Middle East (Lebanon) and one in South America (Brazil). In each country, the BIOHEAD-CITIZEN questionnaire was applied to six subsamples: in-service and pre-service teachers of primary and of secondary schools in biology and national language. The overall sample included 6001 respondents. Multivariate analyses were performed. Results showed differences among countries. Tunisian teachers are those closest to the B-M view of health whereas Finish teachers are the most BPS-M. Logistic regressions showed preferential association of classes within groups (countries, religion, teaching groups and levels of education) to either B-M or BPS-M view of health. These results may help explain differences in school health education found among countries and within countries.

Determinants of need for professional mental health care in adolescents: data from a population based study
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Background
Many studies have been published on the patterns and determinants of health care utilization among adolescents with mental problems, but little is known about factors that influence their need for care. The aim of this study is to assess the occurrence of need for care for mental problems in adolescents and the determinants of this need.

Methods
Data come from the first assessment waves (T1 till T3: 2002 till 2007) of TRAILS (TRacking Adolescents' Individual Lives Survey) ($N = 1406$). TRAILS is a longitudinal study of the development of mental and physical health, starting at the age of 11 years. Need for care was assessed at T3, age 16/17 years (parent report). Possible determinants concerned: health care utilization, emotional and behavioural problems measured with the CBCL and the YSR, child characteristics (sex and progress in primary education), and family characteristics (degree of urbanization, educational level and occupational status of both parents, and parental psychopathology).

Results
Of the 1406 parents, 409 parents (29%) reported their child to need help for mental problems. Results demonstrated that parent reported externalizing problems at T2 and T3 (ages 13/14 and 16/17, respectively) and internalizing problems at T3 predicted need for care at T3. Moreover, following special primary education, parental internalizing problems and receiving specialized care at T2 seemed predictors for a need

Adapting the health care system to climate change: results of a European inventory
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Background
Health impacts of climate (change) can be ordered in three categories: direct impacts through extreme weather events (heat stress, flooding, cold spells), secondary effects when weather patters influence other local systems (e.g. agriculture, food production, disease vectors) that in turn affect health, and tertiary effects that stem from global impacts that affect the local health situation through changes in global trade, wars and immigration. The effects of the secondary and especially the third category are likely the strongest ones in countries with a temperate climate. But the health care systems are not yet prepared to adapt to tertiary impacts nor is this possible as long as scenarios and clear decisions in other policy fields are lacking.

Methods
Therefore, we concentrate on adaptation processes in which the health care system can take the lead. These processes were ordered in a table linking adaptation measures with relevant stressors. Based on this system European experts were asked to provide the information regarding their own country.

Results
Adaptation measures do take place but are often poorly coordinated. Adaptation simply happens and data are collected (if at all) by different institutions both on a national and on regional levels. Some national institutes try to coordinate the work but often only concentrate on selected aspects of this broad theme. From some countries, we received convincing information that they still lack any national adaptation strategy and their preparatory work regarding the health sector has not started yet. Other countries drafted national adaptation strategies but health is not featured dominantly while in other national strategies the health sector is well integrated.

Conclusions
Climate change has a long-term perspective. So education now of young health professionals is essential to prepare them for future decades. Little is seen yet in this regard in the European medical curricula.

Collaborative development of a neonatal sepsis prevention checklist
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Bamyan Provincial Hospital, a Ministry Of Public Health facility, is implemented and managed by the Aga Khan Health Service-Afghanistan. The Provincial Hospital is the natural focal point for secondary care in the Central Highlands of Afghanistan and serves a population of over 500 000 from across the region. The people of Bamyan suffer some of the highest Maternal Mortality and Newborn and Infant Mortality Rates in the world. Neonatal sepsis is one of the major causes of inpatient admission in Bamyan Hospital. The facility plays a critical role in supporting safe deliveries for Mothers who have limited understanding of risks for their newborns, limited resources in their homes and villages and limited access to health care. During Autumn 2008, the Heads of Paediatrics and OBGYN noted that there were persistent, disturbingly high and increasing rates of neonatal sepsis among deliveries by Mothers from all areas of the community. Hospital Management and the respective Department Heads agreed to focus attention on prevention of this deadly condition. The development process of an original and contextually specific checklist has resulted in a marked and immediate decrease in the rate of neonatal sepsis among babies delivered at the Hospital.

Environmental measures for traffic injury prevention. GIS methodology
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Low- and middle-income countries still lack proper surveillance such as registries that document traffic fatal and non-fatal injuries. Literature indicates that traffic injuries prevention can be enhanced based on rigorous documentation and reliable data. The Romanian Road Safety Plan is a national centralized programme, offering little room for local initiative and evidence based approaches. The traffic injury prevention measures implemented so far involve very few health professional and disregard new technologies.

An innovative pilot-project conducted in Cluj-Napoca, Romania used police reports and emergency department data to draw a map of accidents using Global Information Systems (GIS) technology. According to the Police Department Database pedestrian injuries account for 70% of traffic related injuries. More than a third of the traffic crashes occurred under normal weather and road conditions, during daylight and on dry road. GIS has been used to identify traffic injury hot spots with the primary scope of developing future injury prevention strategies in Cluj-Napoca, Romania. This local need based technologically enhanced initiative, uses GIS to assess high risk areas of the city and to allow the local Police Departments to take corrective actions. The digital map enables to locate precisely the hotspots from the city and to develop a need-based intervention plan.

GIS has proved to be a successful tool, specific hotspots being detected and mapped. Further research is needed to determine environmental related causes. Furthermore, population-based educational interventions are encouraged.

Nutritional quality in food services: service impact assessment
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Issue
Food services have a significant role in maintaining or developing public health. However, public food services are under heavy economic pressure and organizational changes are common. The nutritional quality of food is in the danger of being forgotten.

The Services Impact Assessment (SIA) method was developed at JAMK as a tool to evaluate the impact of services. The SIA method is based on the Human Impact Assessment and the Health Impact Assessment methods. The SIA method differs from other methods in two ways: first, the impacts are assessed from several perspectives. Second, the SIA method aims to give quite accurate economic estimates.

Description of the problem
This article is a case study description of how the SIA method can be used to focus on the nutritional quality of food when the public food services are re-organized. The SIA method was used in a small rural municipality with their food service development process in its planning phase. The options for the food service organization were: no changes, one municipal food service organization, cooperation with neighbour organization or outsourcing the food services.

Results
The method showed that one municipal food service organization was best solution in this case from the point of