

## Epidemiology and policy

## SP3-1 AN AUDIT OF DIABETES CARE AT PRIMARY HEALTHCARE CENTERS IN DUBAI/UAЕ 2010

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**Objectives** To assess the current management of diabetic patients and benchmark the results against international standards.

**Materials and Methods** A retrospective medical record review of 87 registered diabetic patients was conducted in diabetes clinics, primary healthcare centers. Records were searched for the last 2 years of Audit implementation in Dubai concerning HbA1c, lipid, BMI, Systolic Blood pressure and diastolic blood pressure indicators in comparison with the standard auditing requirements as indicated by CDC, ICSI.

**Results** HBA1C was taken two or more times a year in 80.4% of the sample which meet the international standard recommendation and only one time in 16.6% of the sample per each year period, 67.82% of patients showed abnormal HBA1C results, 11% of the sample showed HBA1C >9.5 and 32.18% of patients showed HBA1C <7. BMI analysis showed that 89% of the patients were more than normal level (>25), 35% were overweight while (25–30) and 54% were obese according to BMI definition (>30). The study showed that 46% of patients have systolic blood pressure >130 mm Hg, and 29% showed diastolic blood pressure >80 mm Hg. Lipid assessment was conducted on 93% of patients in the sample. The study showed significant difference ( $p>0.05$ ) from international standards in documentation for foot examination (22%) of the sample, vision assessment (40%) of the sample and documentation of advises on diet and exercise (35%). As the international reference for good care and (60%) for documentation.

**Recommendation** 1. Strengthening the healthcare delivery system in diabetes management to achieve the recommended standards as related to control the severity of the disease (which can be done through further investment in manpower, materials, logistics and whole management system. 2. Bringing down the level of.

## SP3-2 COMPARISON OF PESTICIDE EXPOSURE AND OCCUPATIONAL HEALTH ISSUES BETWEEN FULL TIME AND PART TIME VEGETABLE FARMERS IN THE PHILIPPINES

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**Objectives** This study aimed to compare the work practices and health effects of pesticide exposure between full time and part time vegetable farmers.

**Methods** Data gathering was done via structured personal interview using a nine page questionnaire, physical examination and blood extraction for complete blood count and serum creatinine.

**Results** Pyrethroid was the top pesticide type used by both groups. The risk for full time was related to both the amount of exposure and the type of pesticide the group is exposed to. There were more full time farmers who complained of getting or who fell ill because of work. This difference was statistically significant ( $p=0.05$ ). This health seeking behaviour was significantly different for both groups ( $p=0.01$ ). In assessing for the individual component of the neurologic exam, 5.22% from full time farmers, and 8.63% from part time farmers had abnormal cranial nerve function, 22 (5.7%) and 9 (6.47%) have abnormal motor strength. All farmers tested for reflexes, meningeals, and autonomies from both groups were normal. For the haematologic examination, the full time farmers had higher mean

values for creatinine, white blood cell, red blood cell, haemoglobin, and haematocrit. The activity of cholinesterase enzymes in the blood can be utilised as a biomarker for the effect of organophosphates. Out of the 232 blood cholinesterase results, 94 (40%) were abnormal.

**Conclusion** The study showed certain differences between full time and part time farmers in terms of farming practices and health related problems. Education on safe pesticide use and handling and better health monitoring of the farmers are recommended.

## SP3-3 MULTIPLE INDICATOR CLUSTER SURVEY (MICS3): THE SITUATION AND DISPARITIES OBSERVED IN ALGERIA

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**Introduction** This presentation contains the main results of the third Multiple Indicator Cluster Survey (MICS3) of Algeria, which was conducted in 2006 by the National Office of Statistics and the Ministry of Public Health. This investigation is an international initiative launched by Unicef to support countries to fill gaps in information on human development and the situation of children and women. This is the third survey conducted in Algeria (previously undertaken in 1995 and 2000).

**Objectives** 1. To provide the data required to monitor the Millennium Development Goals. 2. To provide data to enable public authorities to implement, monitor and evaluate health policies. 3. To provide regional indicators and to analyse the regional disparities and implement programs to reduce them. 4. To provide data for comparison with other countries.

**Methods and Materials** A sample size calculation was undertaken in order to allow results to be representative at national and regional levels, and also according to urban and rural strata. A total of 29 478 households spread across 17 sub-regions were selected, consisting of 47 612 women (age 15–49 years) and 15 000 children (age <5 years).

**Results** Core data collected for children includes: nutrition, breastfeeding, vaccination, diarrhoeal diseases, education, discipline of children, and birth registration. Data for women includes: general characteristics, marital status, fertility, family planning, maternal care, and knowledge about the transmission of HIV/AIDS. Data for the general population includes: chronic diseases, physical and mental handicap.

**Conclusion** The observed results demonstrate the improvement of the general population in a number of domains, however, differences persist. These results have pushed the government to adapt the programs, taking account of regional and local differences.

## SP3-4 INCIDENCE OF NASOPHARYNGEAL CARCINOMA IN THE NORTH OF TUNISIA: TENDENCY AND PROJECTIONS UNTIL 2024

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Nasopharyngeal carcinoma (NPC) is the second neoplasm of ORL site in Tunisia with a bimodal distribution and a first period occurrence between 15 and 20 years old and a second period occurrence at 50 years old. Data of cancer registry of North Tunisia (CRNT) of the period 1999–2003 confirmed that Tunisia is an intermediate risk area for NPC. This study aims to present the evolution of incidence rate of NPC over a period of 10 years (1994–2003) and try to establish a projection of this rate and the number of cases on 2024 in the north of Tunisia.

**Methods** Data between 1994 and 2003 helped to determine evolution and prediction of the disease and were given by the CRNT, this registry is covering the north of Tunisia then half of the Tunisian population. The data of incidence, by age bracket of 5 years, were planned for 4 periods 2004–2008; 2009–2013; 2014–2018; 2019–2024. For the analysis we used a model of type Bayésien age-troop. The implementation of this analysis was realised by a sampling of Gibbs by means of the software WinBUGS.

**Result** Between 1994 and 2003, we observed negative annual average spleen of standardised incidence evolution in men and women (–3.3% vs 2.7%) also for the standardised incidences which showed a rather important decline (26.4% at the man and –22.3% at the woman). Between periods 1994–1998 and 2019–2024, at the man the number of annual average case could decrease in 36%. At the woman, the number of annual average case could remain stable, the specific rates according to the age increase from the age bracket 65 to 69 but decrease rather sharply at the child's and the adults whose age is 65-year-old subordinate. Then an important decrease of 70% in men and 45% in women was observed. NPC acknowledged a favourable evolution from 1994 to 2003 probably due to a better socioeconomic level. If this tendency is maintained, it could be an interesting area of research.

### SP3-5 INCIDENCE OF BREAST CANCER IN NORTHERN TUNISIA: TREND AND PROJECTION INTO 2024

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Breast cancer is the most frequent cancer localisation in Tunisian women. With ageing of population, combined to a generation effect, it is very likely that we will see in near future an important rise in breast cancer incidence. Also all the Tunisian data have always shown a high rate of young patients (ages below 35 years) around 11%. This study is designed to establish a forecast of the level of the incidence and of a numbers of cases of breast cancer until 2024 in Northern Tunisia. We also try to foresee the evolution of the percentage of young women.

**Methods** Data given by the Cancer Registry of Northern Tunisia (CRNT) from 1994 to 2003 are used as a baseline for further prediction. This cancer register is covering half of the Tunisian population. Data of the incidence have estimated for the periods 2004–2008; 2009–2013; 2014–2018; 2019–2024. Predictions were based on a Bayesian Age-Cohort model. The implementation of this trial has been carried out by sampling after Gibbs method using WinBugs software.

**Results** The number of cases is growing continuously over the four periods. Thus, in 2019–2024, nearly 2000 cases/year are expected in the Northern part of the country. The standardised incidence will grow from 21.6 cases/100 000 women in 1994–1998 to 46.4 cases/100 000 women in 2019–2024, an increase of 80%. Until the age of 59 the specific rates par age rise moderately, beyond we can observe acceleration. Finally the projection allows a follow-up of the percentage of young women < 35 years in step with the periods. The ageing of the population and the cohort effect let us prevue a clear tendency to fall.

**Conclusion** The evolution of the percentage of young women show that the modification of the ages pyramid of the general population paired to a cohort effect (the future generations will have a higher risk), will lead to a lowering of this percentage over years. Thus it is very likely that we can't keep the genetic hypothesis (Tunisian women would have a higher risk due to genetic state).

### SP3-6 ADOLESCENT SEXUAL BEHAVIOUR AND HIV/AIDS IN ETHIOPIA: EPIDEMIOLOGICAL PERSPECTIVES

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**Introduction** Adolescents will be the influential force behind economic prosperity in the future of Ethiopia. Ethiopian adolescent communities today face many health-related challenges, and their lives vary considerably from those of their parents, grandparents and other relatives. A number of behaviours lead to increased risk of getting HIV/AIDS, in particular unprotected sexual intercourse and multiple sexual partners.

**Methods and Materials** Drawing on data from the Ethiopia Demographic and Health Survey (DHS) 2005, this study focused on the latest information about Ethiopian's adolescent people, age 15–24. The DHS collected data from more than 10 000 women and men nationwide including 5813 females and 2399 males in the age group 15–24 years. Regression modes were developed separately for males aged 15–24 years and females aged 15–24 years.

**Results** Fertility and mortality rates fell, but were still subject to short-term variation. Average mortality was 8.2 per 1000 person years, consistent with AIDS-related deaths.

**Conclusion** A new local hospital in 2005 may have contributed to falls in overall illness. Adolescent sexual behaviour and HIV/AIDS remains a challenge and an area for healthcare providers to focus on. The Ethiopian adolescent population has undergone complex changes during a single generation. This research is designed to help program managers, community leaders and organisations working with adolescence to understand some of the epidemiological challenges.

### SP3-7 HYPERTENSION REPERCUSSION ON GENERAL MORTALITY IN A HISPANIC POPULATION

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**Objective** To determine the repercussion of Hypertension (H) on general mortality in Venezuela during the period: 2003–2007.

**Methods** Data obtained of Health Ministry, surged of the death certificates, selecting all codes associated with H mortality and heart diseases mortality (HD) [10th Review]. The HD and H mortality rates were calculated for each studied year and were expressed as the mean of the period. The repercussion of H mortality on HD mortality and general mortality was estimated using the proportionate rates.

**Results** The general mean H mortality rates were 32.15, 31.91 and 32.93 per 100 000 populations for all subjects, males and females respectively. The age-adjusted H mortality rates for each studied year were: for males 673.66, 612.76, 694.10, 609.3 and 448.89 per 100 000 populations and for females, 842.82, 927.25, 836.29, 794.79 and 1090.61 per 100 000 populations. The mean proportionate rate of H (all codes associated) on the general mortality was 7.05% and H mortality (I11–I13 codes only) on HD mortality was 24.92%.

**Conclusions** H mortality show a high repercussion on both general and HD mortality in Venezuela. Females show a higher tendency to dye for H. Non-systematic observations permit to think in the presence of underestimate values for the H, besides the procedures used for the selection of the underlying cause of death, lead to the exclusion of pathologies with H ethiology, being probable that the true repercussion of H on general mortality be higher than the national mortality data permits to know.