

**European Union & North African Migrants:
Health and
Health Systems
“EUNAM”
Project**



**Workshop on
“Disease Panorama in North Africa:
Current Challenges and
Repercussions to Europe”
and
Final EUNAM Meeting**

Golden Tulip Farah
Zone Touristique El Ghandouri,
Tangier, Morocco,

March 18-20, 2015

Organising Committee:

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Preamble

Major Themes:

- **Health Systems in North Africa**
- **Communicable/ Infectious diseases:** Tuberculosis, Hepatitis, HIV, zoonosis..
- **Non Communicable diseases:** Cancers, cardiovascular diseases, recessive genetic diseases, Metabolic diseases (diabetes, obesity), environmental pollutants and exposures
- **Immigration and Health:** repercussions of disease panorama in NA to Europe

North African countries experience a rapid shift in disease burden from decreasing rates of communicable diseases to increasing rates of noncommunicable diseases. According to WHO estimates, this trend in NA is similar to Middle Eastern countries, where by the year 2010 together with NA, communicable diseases will account for 29% of the disease burden (down from 40% in 2000) and non-communicable diseases will account for 53% (up from 45% in 2000). By 2020, the respective figures are estimated to be 20% and 60%. Results from the Global Burden of Disease Upper-income and urban areas in NA countries are mainly burdened by non-communicable diseases, having largely eliminated communicable diseases.

North Africa is characterized by infectious and genetic diseases, some of which have global distribution and impact while some are relatively new to the region. Obesity is a worldwide health problem as BMI and intra-abdominal adipose tissue are strongly correlated with cardiovascular disease and other chronic conditions. Obesity was more documented in NA females as compared to male counterparts and this observation is most marked in Egypt and Morocco. Alarmingly, there has also been an increase in obese pre-school aged and adolescent children, which can be partly attributed to the Westernization of eating habits and lack of physical activity. Cultural factors such as the perception that being overweight is a symbol of good health, higher social status, and fertility, are also contributing to this epidemic.

The marital habits of NA populations have led to a concentration of certain recessive genetic disorders, such as sickle-cell anaemia and thalassemia, which are the direct result of consanguinity in certain areas. While these two diseases are already known to the medical community in Europe, a less prevalent hereditary autoinflammatory disease is familial Mediterranean fever, a condition common to countries in the Eastern Mediterranean area. Consanguineous marriages are common in some NA countries, particularly in Tunisia. Genetic disorders are thus common in Tunisia where recessive conditions, such as hemoglobinopathies, thalassemia, sickle cell disease and familial Mediterranean fever are common. The carrier prevalence of hemoglobinopathy is estimated at 4.5%, reaching 12.5% in some endemic regions. The large and consanguineous Tunisian families have contributed to the description of a number of new autosomal recessive conditions and to identify new loci and genes. Data is lacking on the prevalence of many common diseases in the NA counties. For example, systematic reviews on all major neurological diseases, such as epilepsy, stroke, parkinsonism show such deficits.

Cancer is a worldwide phenomenon, with nearly every country being touched by one form or another. NA reflects a unique pattern of cancer types, directly attributable to lifestyle habits and influenced by the rate of microbial infections, nutritional imbalances, and exposure to environmental toxins. The five most common types of cancers endemic in the NA region are bladder, cervix and uterus, liver, stomach, and nasopharyngeal, all caused by infectious agents such as *Schistosoma haematobium*, HPV, HBV, HCV, Helicobacter pylori, and EBV. NA countries do not present uniform cancer rates for all cancers, and the rate often depends upon the country's underlying disease epidemic. Examples include Egypt which has a significant Liver cancer rate due to the local HCV epidemic and Morocco's high rate of cervical or uterus cancer due to many cases of HPV infection. Based on data from local cancer registries, the overall cancer incidence in NA is lower than in Germany/France. Nasopharyngeal cancer risk is higher in the Maghreb than anywhere else in Europe but still lower than in Southeast Asia; the reason is assumed to be infection with the Epstein-Barr virus. Bladder cancer is common in Egypt and Libya, where the carcinogenic effects are likely to be mediated by inflammation due to schistosomiasis. Lung cancer in men is highest in Tunisia and Algeria but still lower than in Central Europe; the female rates are lower than anywhere in Europe. Liver cancer is common in Egypt due to hepatitis B (HBV) and C viruses (HCV), which are at the level of Italy.

The burden of hepatocellular carcinoma has been increasing in Egypt with a doubling of the incidence rate in the past 10 years. This has been attributed to several biological (e.g. hepatitis virus infection) and environmental factors (e.g. aflatoxin). Other factors such as cigarette smoking, occupational exposure to chemicals such as pesticides, and endemic infections in the community, such as schistosomiasis, may have additional roles in the etiology or progression of the disease. Previously, there was strong evidence that HBV was the major cause of hepatocellular carcinoma in Egypt, but more recently HCV has become the predominant factor associated with the more recent epidemic of hepatocellular carcinoma. It has been well documented that Egypt has one of the highest prevalence rates of HCV infection in the world.

In terms of infectious diseases, TB remains one of the most significant public health in NA, with the highest prevalence on the Western front (Morocco) and 400,000 new cases reported in 2012. Constant epidemiological surveillance is required to ensure that these numbers do not climb. Hepatitis viruses (B and C) are of intermediate endemicity in NA, except for Egypt which harbours the highest HCV prevalence globally. Correct implementation of blood screening practices, sterilized medical equipment, and administration of the Hepatitis B virus vaccine are necessary to maintain this prevalence level. HIV-1 prevalence is low in the local NA population and originates predominantly from Sub-Saharan Africa and many migrants are using NA as a transit point into Europe, thereby bringing non-B strains as well as recombinant and drug resistant forms. Increased viral diversity has been suggested in recent years, with an increase of non-subtype B and recombinant forms. Leishmaniasis is mostly found in Cutaneous form and is mainly restricted to Algeria in NA, yet can be found in a belt spanning the whole NA region. Complicating the situation is its comorbid association with HIV-1. Malaria is not endemic in NA *per se* but poses a risk of re-emergence due to migratory Sub-Saharan Africans transiting through the region. The majority of NA countries have been declared malaria-free in the last few years.

Diabetes is emerging as a multi-factorial metabolic disease that ties into the issue of obesity, lifestyle habits, genetics, with the average prevalence in the NA region hovering around 10%. The heterogeneity across the MENA region in terms of development, urbanization, quality of health care has the potential to impact disease diagnosis, progression, and outcome. Worrisome is the fact that many cases in Tunisia, Algeria, and Egypt go undiagnosed. There is a growing concern that national

prevalences might increase due to impaired glucose tolerance and the increase of Type-2 diabetes in children. An important aspect is the temporality between risk factors and disease development, more specifically nutrition and physical activity and the impact on gene interaction the natural history of the disease.

Objectives:

The objective of this workshop will be to compare and present the health health systems in NA with an emphasis on it's strenghts and weaknesses and also to provide a picture of disease spectrum in NA with an update on communicables diseases and noncumunicables diseases.

- **Communicables diseases:** discussion of epidemiological situation of infectious diseases in the North African region, with focus on changing patterns, migration, and the NA region acting as a transit point between Sub-Saharan Africa and Europe. Infectious disease re-emergence is also an important point to consider in terms of public health
- **Non communicable diseases:** the workshop will focus on cardiovascular diseases, obesity, diabetis, as well as cancers and their risk factors
- **Immigration and Health:** repercussions of disease panorama in NA to Europe

PROGRAM

Wednesday, March 18

09:00-09:20 Welcome Remarks, Introduction and objectives of the workshop
: Kari Hemminki and Meriem Khyatti

09:20-09:50 Migration and Health: Ayman Zohry

09:50-10:10 Survey on healthcare, access to health and other services
of sub-Saharan migrants in Morocco: Loubna Mazini and Meriem
Khyatti

10:10-10:30 Policy dialogue on National Health policies, strategies, plans and
universal coverage in 19 African countries: Imen Jaouadi

10:30-11:00 Coffee Break

11:00-11:20 The experience of health professionals towards the situation of
immigrants in Spain, France and overseas territories: Dra Eva
Gutiérrez and Morad Seghir

11:20-11:40 Health systems in NA countries; strengths and weaknesses: Wagida
Anwar and My Driss El Messaoudi

11:40-12:00 Demographic development and epidemiological transition in NA
countries: Otmane Mourtada and Diaa Marzouk

12:00-12:20 NA immigrants and EU Health systems: lessons for public policy
from the EUNAM project & Health Policy paper: Paul Dourgon

12:20-12:40 Use of GIS in presenting diseases pattern: Mohammed Abid

12:40-13:00 Epidemiology of major communicable diseases in Maghreb:
Abderrahman Benmamoun

13:00-14:00 Lunch

14:00-14:30 Epidemiology of Tuberculosis in NA: Waleed Salah and My
Driss El Messaoudi

14:30-15:00 Molecular epidemiological studies of Tuberculosis in immigrants
Mohammed Abid

15:00-15:30 Epidemiology of Hepatitis in NA: Abdelouhab Benani

15:30-16:00 Coffee Break

16:00-16:20 Epidemiology of HIV in NA: Lahcen Wakrim and Nawar Fayssel

16:20-16:40 Epidemiology of Leishmaniasis in NA: Mouad Aitkbaich and
Meryem Lemrani

16:40-17:00 Vector Born diseases in NA: M. Bkhache and M'hamed Sarih

20:30 Dinner

Thursday, March 19

09:30-10:00 Cancers and risk factors in NA: Sahar Sabbour and Wafaa Mohamed Hussein

10:00-10:30 Consanguinity and Genetic diseases in NA: Hassan Rouba and B. El Haouate

10:30-11:00 Coffee Break

11:00-11:30 Epidemiology of chronic diseases in NA: Sana Jaballah

11:30-12:00 Nutritional status and body image perception of women with NA origin
E. Gualdi, S. Toselli, N. Rinaldo

12:00-12:20 Mental Health in NA: Maha El Gaafari

12:20-12:40 Closing remarks: Kari Hemminki

12:40-13:40 Lunch

14:00- Tour of Pasteur Institute and Tangier

FINAL EUNAM MEETING PROGRAM

Friday, March 20

09:30-09:45 Opening welcome, any outstanding EUNAM business and introduction to the tasks related to the final report
Kari Hemminki

09:45-11:15 Highlights of EUNAM activity by each partner with defined contributions to WPs and deliverables, 20 min each

11:15-11:30 Coffee Break

11:30-13:00 Session continued

13:00-14:00 Lunch (buffet)

14:00-16:00 Discussion and decisions of recommendations, with opening words from Paul and input from each partner