RESCAP-MED
Research Capacity for public health in the Mediterranean

1866 AUB American University of Beirut الجامعة الأميركية في بيروت

Faculty of Health Sciences

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Socio-Political Challenges in the Mediterranean Region:

Implications for NCD Prevention and Control

December 3-4 2014
Beirut - Lebanon

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ABOUT US

RESCAP-MED: Building RESearch CAPacity for Health and its social determinants in the MEDiterranean Region

RESCAP-MED is a collaborative project that aims at enhancing research capacity in a set of disciplines most relevant to improving public health and reducing health inequalities in the Mediterranean region, with a focus on non-communicable disease (NCD) research. It does so through workshops, fellowship programs, symposia and meetings, and through networking, cooperation, and collaboration between researchers in southern and eastern Mediterranean countries and beyond. Part of the commitment to the sustainability of these activities is through our e-learning resource website, NETPH: http://www.netph.org/

In this collaboration, we concentrate on the immense challenges to the health systems and economies posed by the increasing burden of NCDs occurring within the context of the recent socio-political changes in the region, and focus on strengthening the disciplinary capacity necessary to explain the social and environmental determinants of NCDs, necessary to identify achievable policy outcomes and interventions.

RESCAP-MED brings together a total of 11 partners: four academic institutions within the European Union (in the UK and Ireland), and six academic institutions in the Mediterranean region – Jordan, Lebanon, Palestine, Syria, Tunisia and Turkey – in addition to the World Health Organization - Eastern Mediterranean Regional Office (WHO-EMRO) in Cairo. RESCAP-MED is a development from an earlier project on NCDs in the region, MedCHAMPS. RESCAP-MED is coordinated by the Institute of Health and Society, at **Newcastle University** (UK), and is led by its Scientific Coordinator, Professor **Peter Phillimore**. It is funded by the European Commission under the Framework 7 Programme for three years (2012-2014).

For more information, please visit our websites

http://research.ncl.ac.uk/rescap-med/
http://www.netph.org/

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RESCAP-MED
Research Capacity for Public Health in the Mediterranean

Dear colleagues and friends

Ahlan Wa Sahlan!

We warmly welcome you to the second RESCAP-MED Symposium entitled "Socio-Political Challenges in the Mediterranean Region: Implications for NCD Prevention and Control" here in Beirut, following our first one in Istanbul in 2013. We are delighted that you have come to participate in what we believe will be a stimulating series of discussions, bringing together scholars from many countries and several academic disciplines.

The topic of this symposium is one of great importance to this region and beyond. It is made even more urgent because of the political and social turmoil overwhelming many of our countries. At the same time, this urgency is rarely reflected in political and policy debate: the long-term burden of managing the rapid growth of non-communicable diseases (NCDs) only occasionally makes headline news and is rarely part of humanitarian relief efforts. Yet, we start from the position that the Arab Region displays the highest worldwide levels on some key indicators of NCD burden and is projected to witness the second largest proportional increase in NCD mortality worldwide. Six of the countries with the highest rates of diabetes are in the region; obesity rates, notably among women, exceed those recorded in the developed world; and levels of physical activity are among the lowest.

These developments in population health are taking place against a background of political turmoil, unanticipated even a few years ago, and in countries most challenged by scarcity of resources. These countries have been profoundly affected by these seismic events, with massive and growing population movements as people flee violence or its threat. The consequences for physical and mental health of extreme insecurity and hardship, and the repercussions for fragile health systems now additionally overwhelmed by these crises, have scarcely begun to be evaluated. This symposium brings together these two powerful dynamics – the epidemiological and demographic on the one hand and the political and social on the other – to assist this vital process of evaluation.

We are privileged to have four eminent keynote speakers who between them represent an invaluable combination of academic excellence and political and policy engagement, articulated from different disciplinary perspectives. Our three panels – on NCDs and Health System Challenges, The Health Costs of War, and Interventions and Post-Conflict Futures – bring together researchers from across the Middle East and North Africa as well as from Europe and North America. These are supplemented by a range of posters on related themes to extend the range of debate. We have been extremely delighted by the response our call for abstracts achieved.

We end the symposium with a round-table discussion between academics, policy research agencies and international and national NGO representatives. The discussion seeks to identify gaps and challenges and synthesize the main lessons emerging from the meeting and to consider future prospects and opportunities for health system and health service development.

RESCAP-MED presents this symposium in collaboration with our partner, the Faculty of Health Sciences of the American University of Beirut. We hope that you will find this a rewarding two days of debate and discussion, and also hope that you will be able to enjoy the unique beauty of this country and the hospitality and cultural richness of its people.

Abla Mehio Sibai
Chair, RESCAP-MED Symposium 2014
Faculty of Health Sciences
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Peter Phillimore
Scientific Coordinator, RESCAP-MED
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AUB American University of Beirut
Faculty of Health Sciences

RESCAP-MED
Research Capacity for Public Health in the Mediterranean

RESCAP-MED 2nd Regional Symposium

Socio-Political Challenges in the Mediterranean Region:
Implications for NCD Prevention and Control

December 3-4, 2014
Rotana Gefinor Hotel
Beirut, Lebanon

PROGRAM

WEDNESDAY DECEMBER 3, 2014		SPEAKERS
08:30-08:45	**Registration**	
08:45-09:30	**Opening and Welcome**	
	RESCAP-MED and Faculty of Health Sciences, AUB, Lebanon	**Abla Mehio Sibai**
	RESCAP-MED and Newcastle University, UK	**Peter Phillimore**
	Director - NCDs and Mental Health, WHO EMRO	**Samer Jabbour**
	Dean - Faculty of Health Sciences, AUB, Lebanon	**Iman Nuwayhid**
	Director General - Ministry of Public Health, Lebanon	**Walid Ammar**

Program continued on next page

WEDNESDAY DECEMBER 3, 2014 (continued)

		SPEAKERS
09:30-10:30	**Keynote:** From the biomedical to the wounds inside: Developing a framework and metrics relevant to the context of political violence	**Rita Giacaman** Birzeit University, Palestine
	Chair - **Peter Phillimore** - Newcastle University, UK	
10:30-11:00	**Coffee Break – Poster Presentations I**	
11:00-13:00	**Session 1:** NCDs and Health System Challenges	
	Moderator - **Niveen Abu-Rmeileh** - Birzeit University, Palestine	
	Moderator - **Kathleen Bennett** - Trinity College Dublin, Ireland	
	Coverage of care for non-communicable disease patients in a health district of Palestine	**Nadim Barghuthi** Palestine
	Preparing for the healing of war trauma in Syria: Thoughts from a psychotherapy, public health, and autobiographical standpoint	**Tanja Pless-Mulloli** United Kingdom
	How are health professionals facing the NCDs challenges in the current Tunisian context of transition	**Nadia Ben Mansour** Tunisia
	The burden of non-communicable diseases in the United Arab Emirates: Understanding health differentials by nationality status in a demographically unique population	**Katharine Allen** United States of America
	Food consumption pattern among Syrian refugee population in Lebanon	**Mazen Makarem** Lebanon
	Hypertension and socio-economic disparities among Sudanese Women	**Shahd Osman** Sudan
13:00-14:30	**Lunch**	
14:30-15:30	**Keynote:** Generating evidence and supporting decision making for public policy aimed at the prevention of chronic non-communicable diseases	**Nigel Unwin** The University of the West Indies, Barbados
	Chair - **Julia Critchley** - St George's, University of London, UK	
15:30-16:00	**Coffee Break – Poster Presentations II**	
16:00-17:20	**Session 2:** The Health Costs of War	
	Moderator - **Yusuf Khader** - Jordan University of Science & Technology, Jordan	
	Moderator - **Balsam Ahmad** - Newcastle University, UK	
	Issues and controversies in global mental health: Implications for the suffering of war affected populations	**Jane Gilbert** United Kingdom
	A randomized controlled trial of mental health interventions for survivors of systematic violence in Kurdistan, Northern Iraq	**Goran Zangana** United Kingdom
	Survey of Syrian refugees' access to health care in Jordan	**Laila Akhu-Zaheya** Jordan
	Epidemiology of conflict in Iraq, human cost, morbidities and civilian sufferers: A systematic review	**Hamid Hussein** Iraq

THURSDAY DECEMBER 4, 2014

		SPEAKERS
09:15-09:30	**Introduction to Day 2**	**Peter Phillimore** RESCAP-MED, Newcastle University, UK
09:30-10:30	**Keynote:** When health issues are long-term and chronic: Health care in humanitarian emergencies in the Middle East	**Dawn Chatty** University of Oxford, UK
	Chair - **Shahaduz Zaman** - Newcastle University, UK	
10:30-11:00	**Coffee Break – Poster Presentations III**	
11:00-12:40	**Session 3:** Interventions and Post-conflict Futures	
	Moderator - **Belgin Unal** - Dokuz Eylul University, Turkey	
	Moderator - **Nabil Kronfol** - LHMA, Lebanon	
	Impact of a quality management NCD intervention tailored for the most vulnerable disable and older people in a complex humanitarian setting	**Martine Najem** Lebanon
	Outcomes of a diabetes campaign for Palestine refugees with diabetes mellitus type II attending UNRWA health centers	**Nada Abu Kishk** Jordan
	Impact of risk factor modifications on coronary heart disease mortality in Turkish adults for 2025	**Ceyda Sahan** Turkey
	Establishing an evidence base and evaluation framework to assess the effectiveness and costs of NCD interventions for Syrian refugees and Lebanese host communities	**Adam Coutts** United Kingdom
	Syrian crisis and mental health system reform in Lebanon	**Rabih El Chammay** Lebanon
12:40-14:00	**Lunch**	
14:00-15:00	**Keynote:** Transforming NCD health care in Tunisia: Engaging citizens in health policy making through the new social dialogue	**Habiba Ben Romdhane** Faculté de Médecine de Tunis, Tunisia
	Chair - **Fouad Fouad** - AUB, Lebanon	
15:00-15:30	**Coffee Break – Poster Presentations IV**	
15:30-16:00	**NETPH and the future: From MedCHAMPS to RESCAP-MED and beyond**	**Julia Critchley** St. George's University of London, UK
16:00-17:15	**Round table discussion**	
	Moderator - **Salim Adib** - AUB, Lebanon	
	Dawn Chatty, University of Oxford - **Omar Dewachi**, AUB **Zeina Mohanna**, Amel Association International - **Hessen Sayah**, Caritas Lebanon Migrant Center **Michael Woodman**, UNHCR - **Maha Yehya**, Carnegie Middle East Center	
17:15-17:30	**Closing session**	
	Abla Sibai & **Peter Phillimore**	

BIOGRAPHIES OF KEYNOTE SPEAKERS

Professor Rita Giacaman

Institute of Community and Public Health (ICPH)
Birzeit University (BZU)
Birzeit, West Bank
Occupied Palestinian Territory

A founding member of ICPH/BZU, Rita was a researcher/practitioner in the 1980's Palestinian social action, which led to the development of the Palestinian primary health care model. In the 1990s, she participated in building the Palestinian community based disability rehabilitation network. Since 2000, she has been focusing on identifying factors associated with the emergence of chronic diseases in the oPt, including exposure to violence, distress and human insecurity; and the development of measures suitable for assessing health in conditions of protracted violence. She has published locally and internationally. Rita was awarded an Honorary PhD from LSE in 2011 for having made an "outstanding contribution to the increased understanding or appreciation of 'the causes of things'..."

Professor Nigel Unwin

Chair of Population Health Sciences, Chronic Disease Research Centre
University of the West Indies
Barbados

I am a public health physician, with track record in studying the burden, prevention and control of diabetes and CVD. Much of this work has been in low and middle income country settings. My academic career began at Newcastle University, UK, in 1993. I've worked with the International Diabetes Federation and the World Health Organization, including 2 years as medical officer in Geneva. In August 2010 I moved to the University of West Indies. Here, at the Cave Hill Campus, Barbados, I've helped to develop graduate public health training and research addressing the prevention and control of diabetes and CVD.

Professor Dawn Chatty

Professor of Anthropology and Forced Migration
University of Oxford
United Kingdom

Dawn Chatty is University Professor in Anthropology and Forced Migration and Director of the Refugee Studies Centre, Department of International Development (Queen Elizabeth House), University of Oxford, UK. Her research interests include nomadic pastoralism and conservation, gender and development, health, illness and culture, and coping strategies of refugee youth. Among her most recent books are: Children of Palestine: Experiencing Forced Migration in the Middle East (eds. with Gillian Lewando-Hundt), Berghahn Press, 2005; Handbook on Nomads in the Middle East and North Africa (ed.) Brill, 2006; and Displacement and Dispossession in the Modern Middle East, Cambridge University Press, 2010.

Professor Habiba Ben Romdhane

Professor of Preventive Medicine and Director of the Cardiovascular Disease Research Laboratory (CAVEPLA)
University of Tunis, Tunisia

In 2011, Dr. Ben Romdhane was the Tunisian Minister of Health. She has been the Chief Executive Officer for the National Board of Family and Population. Dr. Ben Romdhane was elected through Distinction as a Fellow in the Faculty of Public Health at the Royal College of Physicians in the UK. Dr. Ben Romdhane has coordinated several epidemiological studies on noncommunicable diseases (NCDs) and implemented the Healthy Urbanization Project in Tunisia. She led the implementation of the first Tunisian CVD Registry. She is currently leading several European Union funded projects such as the Epidemiological Transition & Health Impact in North Africa, TAHINA and MedCHAMPS. Dr. Romhdane has published many scientific papers, monographs and books on women's health, NCDs and health policy. She is a co-founder and chair of the Tunisian Society of Epidemiology and Preventive Medicine; co-founder and member of the board of the Maghreb Network on Research on Health System (RESSMA); and cofounder and chair of the National Observatory of Health Equity. In 2001, she was awarded the Maghreb Medical Science Society Award for her work on CVD Epidemiology & Prevention.

ORAL PRESENTATIONS

Session 1: NCDs and Health System Challenges
December 3: 11:00 – 13:00

Moderators:
Niveen Abu Rmeileh, Birzeit University, Palestine
Kathleen Bennett, Trinity College, Ireland

Coverage of Care for Non-Communicable Disease Patients in a Health District of Palestine

Nadim Barghuthi[1], Ramez Dweakat[2], Yaser Bouzyeh[2], Assad Ramlawi[2], Wendy Venter[1]

[1]WHO, Palestine; [2]Ministry of Health, Palestine

Introduction: The burden of non-communicable diseases (NCD) in Palestine is high, as in other countries in the region. The Ministry of Health (MOH) is the main health care provider in Palestine. In the past, the MOH lacked a system for counting the number of registered NCD patients. Recently the MOH has implemented the WHO Package of Essential Interventions for Non-Communicable Diseases in Low Resource Settings that lead to the introduction of a simple NCD register in primary care clinic. The new register enabled counting of NCD patients and therefore calculation of coverage of expected NCD patients by MOH facilities.

Methodology: The expected numbers of hypertension and diabetes mellitus patients for the district were calculated using population projections based on the 2007 Palestine census and the prevalence of hypertension and diabetes obtained from the Palestine STEP survey 2011. Data were extracted from the NCD registers of one district, entered into an Excel database and analyzed.

Results: The 14 clinics of Salfeet District registered 2,470 NCD patients during 2013. Among these, 1,574 (64%) had hypertension and 1,281(51%) had diabetes. This represents 21.5% of the expected patients with hypertension, with clinic catchment coverage ranging from 12% to 27%. The registered diabetics represented 58% (33% to 82%) of the expected diabetes patients, with clinic catchment coverage ranging from 33% to 82%. Considering that 70% of the Salfeet population is covered by public health insurance and therefore likely to use MOH clinics, the coverage was recalculated, this time reaching 31% of expected hypertension patients (18% - 44%) and 83% of diabetes mellitus patients (47% - 117%).

Interpretation: Use of MOH NCD services is substantially higher among patients with diabetes mellitus than among those with hypertension. The difference may in part be explained by the fact that the MOH has for more than 20 years implemented a special program for diabetes patients in all districts. The costs of diabetes medications may also force patients to seek care through the public system rather than from private practitioners. The lower coverage of hypertension may also mean that health workers are not detecting cases.

Recommendations:
- Active screening for the early detection of NCD, particularly hypertension
- Allocate additional resources to primary care to face the expected increase in the number of registered NCD patients in the future

Acknowledgment: We appreciate the work of the staff of all clinics in Salfeet district

Preparing For the Healing Of War Trauma in Syria: Thoughts from a Psychotherapy, Public Health, and Autobiographical Standpoint

Tanja Pless-Mulloli

Northern Guild of Psychotherapy, UK

"Much of the violence that plagues humanity is a direct or indirect result of unresolved trauma that is acted out in repeated unsuccessful attempts to re-establish a sense of empowerment." Peter Levine in: *Waking the tiger, healing trauma, the innate capacity to transform overwhelming experiences*, 1997.

The link between war trauma and mental health is well established. Syrians have experienced internal displacement, extremes of hardship, and grief, both within their country and as refugees. A UNHCR assessment of mental health and psychosocial support services for Syrian refugees in Lebanon (2013) and a WHO document of the Mental Health Gap Action Program (2013) provide some milestones for identifying community focused and case focused interventions, but are both rooted in the assumption of transferability of trauma causes and treatment.

Whilst emotions and attachment are universal human constructs, responses to both trauma and therapeutic trauma interventions are shaped by culture. Planning for the future healing of the mental health consequences of war trauma in Syria are complicated by some important factors:

• The limitation of traditional mental health services to psychiatric services rooted solely in a medical model of ill health
• The absence of psychotherapy (talking therapy) services, which operate from a holistic and relational understanding of mental health and illness
• A dominant culture of stigma of mental health conditions.

I will argue that coordinated and integrated efforts are needed in at least three domains:

1. Culturally sensitive psycho-education. These should aim to increase the understanding of symptoms and treatability of trauma consequences and complicated grief, as well as reducing its stigma,
2. Health needs assessments to identify those showing risk factors and signs of developing chronic post-traumatic stress disorder and complicated grief (current studies all from Western societies). This would also aim to minimize the risk for transgenerational transmission of trauma consequences,
3. Training of specialist psychotherapists, who are able to work across methodologies incorporating attachment theory and neuroscience, as opposed to exclusively using CBT, both short-term and longer term.

In my paper I will draw on my 25 years' experience as academic in environmental public health, my recent five years' experience as psychotherapeutic counselor, as well as autobiographic reflections of growing up as a child of war traumatized parents in post-World war II Germany.

How Are Health Professionals Facing the NCDs Challenges in the Current Tunisian Context of Transition?

Nadia Ben Mansour, Asma Sassi Mahfoudh, Habiba Ben Romdhane

Laboratory of Epidemiology and Prevention of Cardiovascular Diseases, Tunisia

Background: Nowadays, Tunisian society is experiencing profound transitions in multiple levels. The health care system in this critical historical juncture is facing a growing burden and challenges in managing Non Communicable Diseases (NCD). Currently in Tunisia, it is well recognized that any reform process is obscured by the growing popular anger and finance difficulties. The objective to this study is to present a qualitative 'situation analysis' on Diabetes's management in Tunisia, with a focus on the micro level of care with its main actors, namely health care providers (HCP) and patients.

Methods: This study was conducted in 2014. Primary health care center (PHC) was chosen from the governorate of Nabeul situated in Northeast of Tunisia in addition to the only specialized center in diabetes care (INNTA) situated in the capital Tunis. Direct interviews were conducted with seven HCPs: a medical professor, nutrition specialist, training doctor and a nurse from the consultation department of the hospital and two general practitioners (GPs) and one nurse from the PHC. In addition, 40 patients were interviewed from the hospital and PHC clinics (20 from each). All patients attending the PHC on one day were included; in the hospital, patients were selected randomly from the waiting room.

Results: For all HCP questioned, overloaded clinics were the main difficulties encountered, but this problem was more stressed in the INNTA, while treatments availability was specifically raised by the PHC GPs. When questioned about improvement possibilities, increasing recruiting of medical and mainly paramedical was common between all responses, in order to lighten the overloading of consultation, and allow nurses assisting doctors in consultation. Moreover, specific aspects to each context of care were raised: in the hospital, doctors inspired to computerize boxes of consultation and medical records while in the PHC, demands were more basic such providing sufficient treatments and Glycated hemoglobin testing. Referral to specialists was not voiced as problems to the PHC's GPs, as they did not find any difficulties to manage their patients. For patients of both centers, reasons of dissatisfaction were very close, namely overcrowding and long latency. Patients also complain about Doctors who did not take time to clarify blood exams results and diabetes equilibrium. A gap in nutritional and therapeutic education was also cited.

Conclusion: Overcrowded outpatients clinics and consequent reduced communication on the part of doctors were the main criticism voiced in the interviews. Reorganizing the referral system may be central to the current debate on reforming Tunisian healthcare system and improving quality of care.

The Burden of Non-Communicable Diseases in the United Arab Emirates: Understanding Health Differentials by Nationality Status in a Demographically Unique Population

Katharine Allen[1], Adnan A. Hyder[1], El Daw Suliman[2], Oliver Harrison[3]

[1]Johns Hopkins Bloomberg School of Public Health, USA; [2]Dubai Health Authority, United Arab Emirates; [3]Health Authority of Abu Dhabi, United Arab Emirates

Background: Most Gulf Cooperation Council (GCC) countries are characterized by a demographically unique population structure where the majority of residents are migrants. The United Arab Emirates (UAE) is one such GCC country where only an estimated 10-15 percent of the population consists of citizens. The rest are migrants, who are predominately low-income male laborers from South and Southeast Asia. While the UAE has not experienced extensive socio-political upheaval in the past five years, the state has increased its focus on national security issues and attempted to address the large influx of migrants. Given the unique demographic profile of this country, it is important to better understand the health status, especially in terms of non-communicable diseases (NCDs), of its residents. Migrants and Nationals have distinct health profiles, which have yet to be systematically quantified.

Methods: World Health Organization and Global Burden of Disease Study protocols were followed to conduct a national burden of disease analysis for the UAE. Local mortality and morbidity data were used. Leading causes of death and Disability-adjusted Life Years (DALYs) were calculated by age, sex and nationality (national vs. migrant).

Results: In 2010 an estimated 1,405,481 DALYs were lost due to disease and injury conditions in the UAE. Migrants were responsible for 67% of this burden. The leading causes of DALYs for all residents included road traffic injuries (RTIs), diabetes, circulatory diseases and other non-communicable diseases. In terms of leading causes of deaths, Nationals experienced a large burden of circulatory diseases, ischemic heart disease, RTIs and diabetes. Deaths among migrants were also due to NCDs such as ischemic heart disease and cancers. However, when examining mortality differentials by nationality, migrants experienced more injury deaths including RTIs, suicides and falls.

Conclusion: This study has highlighted the high burden of NCDs such as diabetes, ischemic heart disease and injuries including RTIs and suicides in the UAE. The burden of NCDs appears to be higher among Nationals, but is also considerable for the migrant population. Fatal injuries like suicides and falls among migrants suggests that mental health conditions and occupational risk factors must be better studied. Given the UAE's increased focus on addressing its demographic imbalance, this study has important findings for understanding the current burden of disease in the UAE. These findings have important policy and research implications and suggest that NCD-focused health policies and interventions are warranted for both National and migrant populations in the UAE.

Food Consumption Pattern among Syrian Refugee Population in Lebanon

Susana Moreno Romero, **Mazen Makarem**, Catherine Said, Soha Moussa

United Nations World Food Programme, Lebanon

Background: Since start of the conflict in Syria, influx of refugees into Lebanon continued and number of UNHCR-registered refugees reached 1.1 million by August 2014. Given the high risk of food insecurity among the refugees with limited livelihood sources, WFP has been providing food assistance to Syrian refugees since June 2012 with an aim of ensuring minimum access to food while mitigating the risks of engaging in irreversible coping strategies. For better understanding on the living conditions of Syrian refugees in Lebanon, WFP together with UNHCR and UNICEF conducted the Vulnerability Assessment of Syrian Refugees (VASyR) in 2013. The same assessment was conducted again in 2014 to provide an updated analysis of the situation.

Objective: The assessment was conducted to analyze food consumption patterns and identify potential risk of malnutrition of Syrian refugees in Lebanon with an aim of providing recommendations for food assistance programming.

Methodology: A survey was undertaken with 1,422 households in May and June 2013. The same survey was conducted in 2014 with 1,747 households in May and June. Household food consumption frequency was recorded with a 7 day recall module of 16 food groups. Descriptive statistics were calculated for each food group as well as for the derived indicators of Food Consumption Score, Household Daily Average Diet Diversity and Household Weekly Diet Diversity. Consumption patterns of 2013 and 2014 were compared to observe changes.

Results: In 2014, percentage of households with acceptable Food Consumption Score (FCS) decreased from 93% to 87% whereas border line FCS increased from 4% to 10%. Diet diversity also decreased in 2014. The most consumed food groups were bread, condiments, sugar and fats, whereas vitamin A rich vegetables and fruits, meat and fish were less consumed.

Conclusion: Most refugees in Lebanon had an acceptable food consumption and diet diversity, however the status seems to have deteriorated over the last year. The food pattern points out a relatively high risk of micronutrient deficiencies among refugee population. At the same time, a number of households reported hyper-caloric diet which could be mitigated by the reduced number of meals and portion size. WFP has distributed nutrition leaflets in all contracted shops to sensitize the refugees on how to optimize their food purchase in order to obtain improved nutritional status.

Hypertension and Socioeconomic Disparities among Sudanese Women

Shahd Osman[1], Abla Mehio Sibai[2]

[1]Public Health Institute, Sudan; [2]Faculty of Health Sciences, American University of Beirut, Lebanon

Background/Aim: Hypertension akin to other Non-communicable diseases (NCD) is rising in Low and Middle Income Countries (LMIC) due to the epidemiological transition. Sudan has serious economic challenges that may add to the vicious circle of NCD and poverty transitions. Studies describing associations of socio-economic factors with NCD in general have given diverse results. Hypertension is the most common among all other NCD in the country, representing almost 25% of the burden of NCD; it is also the most frequent treated condition in outpatient clinics. This study examines hypertension and its association with social and economic disparities among women in Sudan as a case study for knowledge generation using the Sudan Health Household Survey (SHHS) 2010.

Methods: Secondary analysis of the SHHS data was conducted, focusing on adult females aged 25 years and above (n=16,430). Variables examined included hypertension (dependent), and wealth index, education, occupation and location (independent variables).

Results: Analysis of the SHHS data revealed a relatively low prevalence of hypertension among women (4.6%). Hypertension was significantly associated in a dose-response manner with increasing wealth index. Geographical discrepancies were also noted between states with hypertension being less prevalent in Eastern states (OR: 0.6, 95% CI: 0.4-0.8), Central States (OR: 0.75, 95%CI: 0.6-0.97) and Darfur region (OR: 0.3, 95% CI: 0.2-0.5) compared to Khartoum, the capital city.

Conclusion: Sudan is in its early stage of epidemiological transition; its economy and political instability make it vulnerable for undesirable consequences of globalization. The NCD module in the SHHS lacks details on risk factors e.g. smoking, diet, exercise etc; thus, findings need to be interpreted with caution. Currently, affluent segments of the population seem to be more affected by the transition. Nevertheless, enhancing the NCD modules in National surveys to include risk factors will be of great value for knowledge generation and policy development in the future.

Session 2: The Health Costs of War
December 3: 16:00 – 17:20

Moderators:
Yusuf Khader, Jordan University of Science & Technology, Jordan
Balsam Ahmad, Newcastle University, UK

Issues and Controversies in Global Mental Health: Implications for the Suffering of War Affected Populations

Jane Gilbert

Independent Consultant Clinical Psychologist, UK (www.janegilbert.co.uk)

The experience of emotional distress is universal, but how it is understood and what people think needs to be done to help is dependent on cultural context. However, one of major aims of the movement for Global Mental Health, launched in 2007, is to actively promote the "scaling up" of Western treatments and medication worldwide. This approach has attracted criticism on various grounds, including: its focus on an individualistic biomedical model; diagnosis based on "symptoms" rather than someone's lived experience of distress; and lack of attention to the role of social and political factors.

This paper reviews some of these issues and controversies, and specifically highlights the risks posed by the adoption of a Western global mental health approach in the current conflict situations in the Middle East region. Can this approach have value in a situation where millions of people are displaced, have experienced the effects of war, suffered the catastrophic loss of family members and, for many, loss of all the facets of their lives as they once knew them? It is argued that a different approach is needed, one which is founded on specific local values and culture, which strengthens bonds and networks, and enables people to forge new identities, even in extremely difficult circumstances. The paper concludes with an example of this approach, describing the role of Syrian refugees at a community centre in Turkey.

A Randomized Controlled Trial of Mental Health Interventions for Survivors of Systematic Violence in Kurdistan, Northern Iraq

Goran Zangana[1], Paul Bolton[2], Judith Bass[3], Sarah Murray[3], Debra Kaysen[4], C.W. Lejuez[5], Kristen Lindgren[4], Laura Murray[3]

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Experiencing systematic violence and trauma increases the risk of poor mental health outcomes; few interventions for these types of exposures have been evaluated in low resource contexts. The objective of this randomized controlled trial was to assess the effectiveness of two psychotherapeutic interventions, Behavioral Activation Treatment for Depression (BATD) and Cognitive Processing Therapy (CPT), in reducing depression symptoms using a locally adapted and validated version of the Hopkins Symptom Checklist and dysfunction measured with a locally developed scale. Secondary outcomes included trauma, anxiety, and traumatic grief symptoms. Twenty community mental health workers, working in rural health clinics, were randomly assigned to training in one of the two interventions. The community mental health workers conducted baseline assessments, enrolled survivors of systematic violence based on severity of depression symptoms, and randomly assigned them to treatment or waitlist-control. Blinded community mental health workers conducted post-intervention assessments on average five months later.

Adult survivors of systematic violence were screened (N=732) with 281 enrolled in the trial; 215 randomized to an intervention (114 to BATD; 101 to CPT) and 66 to waitlist-control (33 to BATD; 33 to CPT). Nearly 70% (n=149) of the intervention participants completed treatment and post-intervention assessments; 80% (n=53) waitlist-controls completed post-intervention assessments. Estimated effect sizes for depression and dysfunction were 0.60 and 0.55 respectively, comparing BATD participants to all controls and 0.84 and 0.79 respectively, compared to BATD controls only. Estimated effect sizes for depression and dysfunction were 0.70 and 0.90 respectively comparing CPT participants to all controls and 0.44 and 0.63 respectively compared to CPT controls only. Using a permutation-based hypothesis test that is robust to the model assumptions implicit in regression models, BATD had significant effects on depression (p=.003) and dysfunction (p=.007), while CPT had a significant effect on dysfunction only (p=.004). Both interventions showed moderate to strong effects on most outcomes. This study demonstrates effectiveness of these interventions in low resource environments by mental health workers with limited prior experience.

Trial registry name: ClinicalTrials.Gov.
Registration identification number: NCT00925262

The full trial protocol is available at the registry URL:
http://clinicaltrials.gov

Survey of Syrian Refugees' Access to Health Care in Jordan

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The crisis in Syria began in 2011, and as a result Jordan became the temporary home to a number of Syrian refugees who escaped the conflict in their home country. The number of refugees is expected to increase for as long as the conflict continues; they will be living either in camps or with hosted families. The escalating number of Syrian refugees creates a burden on the Jordanian Health System, who is struggling to meet current demands. However, there is no clear picture of the Syrian refugees' access to health care in Jordan.

A national assessment survey of the access to health care was conducted as a joint effort by the Center for Refugee and Disaster Response at Johns Hopkins University Bloomberg School of Public Health, the World Health Organization, the School of Nursing at Jordan University of Science and Technology, the United Nations High Commissioner for Refugees, and the Ministry of Health of the Hashemite Kingdom of Jordan, including a representative number of Syrian refugees in Jordan. The survey conducted sought to characterize the health status and care-seeking behaviors of Syrian refugees living outside of the camps, as well as to inform on issues related to their access to health care. In addition, the survey would support the Jordanian Ministry of Health, UNHCR, WHO and health service providers in Jordan by providing information that can inform humanitarian response planning, refugee health programming, and health systems strengthening efforts.

The survey was conducted using a two-stage cluster survey design, with a probability proportional sample including a 125 cluster x 12 household, using a questionnaire developed by consensus between WHO, UNHCR and JHSPH.The presentation will highlight the study procedure, implementation, study procedure, and the results that will include the Syrian refugees' demographic characteristics, such as living conditions, household members health (adult, child health and hospitalization), antenatal care and health care access.

Epidemiology of Conflict in Iraq: Human Cost, Morbidities and Civilian Suffering

Hamid Hussein

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Introduction: The pattern of conflict has an immediate impact on civilian suffering. If water supplies are damaged, sanitation impaired, shelter damaged, electricity cut, or health services impaired, mortality rates start to rise. War has a powerful impact on those who have lived through one, bending every calculation, every thought, every action to the possible consequences of violence, deprivation, displacement, death and the other ravages of conflict. The objective of this study is to review morbidities, human cost and mortalities associated with the conflicts and to examine epidemiological patterns of civilian suffering by long-term conflicts.

Methodology: Electronic databases were searched using a pre-defined search strategy. Additional references from the bibliographies of retrieved articles were also reviewed and experts in the area were contacted. Only original research articles seeking to identify the health and conflicts, human cost of conflicts in Iraq were included.

Results: The initial literature search identified 120 papers. Of these, 13 original articles met the selection criteria, and directly related to human cost and health relevance of conflict in Iraq. All were type II evidence—population-based studies. The methodological qualities of included studies were assessed using the Downs and Black checklist. The study shows that long-term conflict in Iraq burdened 40% of children with fear, insomnia, nightmares, helplessness, and detachment. Incidence of childhood cancer were 10 times more than other industrial countries. Birth defects increased 17-fold in one hospital during last 10 years. The risk of death was estimated to be 58 times higher (95% CI 8.1–419) than in the period before the war. An excess mortality of nearly 100 000 deaths were reported in Iraq for the period March 2003–September 2004, attributed to the invasion of Iraq. Pre-invasion mortality rates were 5.5 per 1000 people per year (95% CI 4.3–7.1), compared with 13.3 per 1000 people per year (10.9–16.1) in the 40 months post-invasion. Mortality estimate as of July 2006 were at 654,965 (392,979–942,636) excess Iraqi deaths as a consequence of the war, which corresponds to 2.5% of the population in the study area. The number of displaced persons, both internal and external (refugees, mainly in Jordan and Syria) ranged from estimates of 3.5 million to 5 million or more.

Conclusion: The mortalities, morbidities and civilian sufferings by conflict in Iraq is vast. Vulnerable groups (women and children) are the most affected segments by the direct or indirect long terms consequences of the conflict. Morbidities are significantly mapped by the war forces as shown by mental health and other related physical illnesses. There is a pressing need to promote sound epidemiologic approaches to determining mortality and morbidity estimates and to establish guidelines for policy-makers, the media and the public on how to interpret these estimates.

Session 3:
Interventions and Post-conflict Futures
December 4: 11:00 – 12:40

Moderators:
Belgin Unal, Dokuz Eylul University, Turkey
Ibtihal Fadhil, WHO-EMRO

Impact of a Quality Management NCD Intervention Tailored For the Most Vulnerable Disable and Older People in a Complex Humanitarian Setting

Martine Najem, Rima Afifi, Abla Sibai, Sarah Armoush, Mia Chartouni, Maguy Ghamen

Faculty of Health Sciences, American University of Beirut, Lebanon

The emergence of non-communicable diseases (NCD) worldwide and in the Arab region is currently considered an "emergency", with major adverse economic and health impact. Yet, capacity for prevention and control remains inadequate in resource-scarce countries, and is accentuated in times of uncertainty and conflict. In light of the Syrian crisis and the massive influx of Syrian refugees to neighboring countries, specifically Lebanon and Jordan, HelpAge International and the Center for Public Health Practice (CPHP) at the American University of Beirut are collaborating to monitor and evaluate a pilot intervention for quality management of NCDs with focus on hypertension and diabetes among adults aged 60 and above. This program will be implemented in 5 different healthcare centers of AMEL – a community based NGO with a long history of service to disadvantaged populations in Lebanon. This project aims to decrease chronic disease related morbidity and mortality among Syrian refugees and host communities in the catchment area of the healthcare centers by improving the management of diabetes and hypertension at the primary health care level, focusing on the health needs of the most vulnerable disable and older people. Using both quantitative and qualitative methods, the evaluation aims to answer the following specific questions: In a setting like Lebanon where Syrian refugees are living in informal settlements, how can the impact of such a program be measured? What are effective capacity building activities, which enhance the quality of services provided in primary healthcare centers catering for the health needs of the most vulnerable disable and older people? Are such interventions effective in a disadvantaged context of high uncertainty where healthcare centers lack human and other resources? Does the impact differ between host communities' members and refugees? What are the barriers, challenges and facilitators to implementing this intervention in complex humanitarian settings? Results of the ongoing evaluation will be shared during the conference. If positive, results will provide evidence for advocacy at a national and regional level to enhance quality services provided at the primary health care level for the prevention and control of NCDs.

Outcomes of a Diabetes Campaign for Palestine Refugees with Diabetes Mellitus Type II Attending UNRWA Health Centers

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Background: United Nations Relief and Works Agency for Palestine Refugees in the Near East (UNRWA) is the main healthcare provider for Palestine refugees in Jordan, Lebanon, Syria, the West Bank and Gaza Strip. According to UNRWA's clinical audit on diabetes care 2012, 90.0% of patients are either obese (64.0%) or overweight (26.0%). By the end of 2013 the prevalence of Diabetes Mellitus type II (DMII) among Palestine refugees for those above 40 years was 11%. UNRWA conducted a DMII campaign, "Life is Sweeter with Less Sugar" to improve the early detection and comprehensive management of DMII among Palestine refugee. The objective of this study is to evaluate this campaign.

Method: A total of 1300 patients from 30 of the largest health centers (HCs) in Jordan, Lebanon, West Bank and Gaza, were randomly selected to participate in focus groups, with criteria of age ≥40 years, having only DMII or DMII and hypertension (HTN) for more than one year, and willing to participate. HC workers conducted educational, healthy cooking, and exercise sessions on a weekly basis. Anthropometric measurements, blood tests (2 hours postprandial glucose tests (2hrPPG), cholesterol, & blood pressure), and percentage of sessions attended were tracked on a monthly basis. Pre– and post-questionnaires on knowledge and practice of diabetes management were collected.

Findings: A total of 1,174 patients (951 females, 223 males) completed the campaign, average age was 51.9, DMII patients were (36.1%) and DMII or HTN (59.3%) and DMI (4.6%). Improvements in anthropometric measurements and blood tests were observed ($p<0.001$): weight (-2.0kg), waist circumference (-2.69cm), waist-height ratio (WHtR) male (-1.2) and female (-1.7), Body Mass Index (-0.8), 2hrPPG (-32.1mg/dl), and cholesterol (-7.2 mg/dl). Also, improvements in the prevalence of non-communicable disease (NCD) risk factor were detected: 2hrPPG >180mg/dl before 773(66%)- after 439(39%), blood pressure (≥140/90mmHg) before 325(28%)- after 160(14%), cholesterol ≥200 mg/dl before 506(43%)- after 413(37%). A significant correlation was found between the percentage of education and cooking sessions attended and BMI change and between educational/exercise sessions and WHtR. Most of the healthy lifestyle practices were also improved.

Interpretation: This campaign proved to help patients improve their knowledge about NCD risk factors and introduce healthy lifestyle changes in addition to improvement in related indicators such as blood sugar level and BP readings. Furthermore, it enabled HC workers to improve counseling skills and management of diabetic patients. Such campaigns need to be sustained and expanded to other HCs.

Impact of Risk Factor Modifications on Coronary Heart Disease Mortality in Turkish Adults for 2025

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Introduction: Despite declines over the last years, coronary heart disease (CHD) mortality rates in Turkey can be decreased much more by interfering with policies. This study uses a modelling approach to compare the potential impact of future risk factor scenarios relating to smoking, physical activity levels, dietary salt, saturated fat intakes, mean BMI levels, diabetes prevalence and fruit-vegetable (F/V) consumption on future CHD mortality in Turkey for year 2025.

Methods: CHD mortality model previously developed and validated in Turkey was extended to predict potential reductions in CHD mortality from 2008 (baseline year) to 2025. Using risk factor trends data from recent surveys as a baseline, we modelled alternative future risk factor scenarios. First, a modest scenario; reductions in dietary salt by 20%, saturated fat by 2% energy intake, BMI by 5%, diabetes by 5%, smoking by 10%, physical inactivity by 5% and increasing F/V intake by 5%. Second, an optimistic scenario: reductions in dietary salt by 30%, saturated fat by 3% energy intake, BMI by 10%, diabetes by 10%, smoking by 15%, physical inactivity by 10% and increasing F/V intake by 10%. Probabilistic sensitivity analyses were conducted to overcome uncertainties on model parameters. Findings: Projected populations in 2025 (adults aged 25-84) were 54 million in Turkey. In case of no mortality change, modest policy changes in risk factors resulted with approximately 28590 (range: 25731-31449) fewer CHD deaths per year (percentages attributed to changes in smoking 27%, salt reduction 32%, saturated/unsaturated fat 19%, diabetes 16%). Optimistic scenario prevented 48581(range: 43723-53439) CHD deaths per year (percentages attributed to changes in smoking 19%, salt reduction 28%, saturated/unsaturated fat 16%, diabetes 20%). In both scenarios, nearly one-third of deaths prevented were due to the changes in salt intake.

Conclusions: Modest risk factor reductions in smoking, salt reduction and diabetes could prevent around 30000 CHD deaths in Turkey. Implementation of population based, multisectoral interventions to reduce salt consumption, smoking and diabetes should be scaled up in Turkey. The government and food industry are required to act together on this issue.

Establishing an Evidence Base and Evaluation Framework to Assess the Effectiveness and Costs of NCD Interventions for Syrian Refugees and Lebanese Host Communities

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The conflict in Syria and the protracted refugee crisis in neighbouring countries has led to a multi-agency response, which has implemented interventions to protect and improve health. However, no assessments or data have been identified which examine the effectiveness in terms of financial cost and health outcomes of health interventions.

NCDs pose a large social and economic burden for the individual and household across middle-income countries and often require more advanced medical services and treatments than communicable diseases. In humanitarian settings, restricted access to health services can lead to late diagnosis, which may require expensive and complex medical treatments. This may result in poor health outcomes and further economic burdens on local health systems as and refugees themselves. Pre crisis research indicates that NCDs accounted for 77% of all deaths in Syria: 30% due to hypertension and 15% as a result of Type II diabetes. Surveys conducted by the Syrian Centre for Tobacco Studies (SCTS), show half of 45–65-year-old Syrian women had hypertension, and 15% of older men and women had ischemic heart disease. Within the current context constrained and deteriorating living conditions in terms of hygiene and sanitation, access to food and negative health and coping behaviours is exacerbating pre-existing rates of NCD mortality among the refugee population. In addition limited financial support and service capacity for preventive interventions at the primary health care level in Lebanon has resulted in NCDs being neglected and Syrians refugees requiring referral to expensive private secondary health care facilities which they can little afford. A recent MSF study of access to care for Syrian refugees found that NCD treatment remains an almost an unaddressed medical need among the refugee population.

Using evidence from a recent survey conducted by Help Age International and Handicap International, the paper examines the NCD situation among Syrian refugees and the evidence void surrounding the efficacy and health impacts of NCD interventions in humanitarian settings. Drawing on a case study of an NCD intervention being undertaken in Lebanon, the paper will discuss and demonstrate how more robust and appropriate research designs can be used in the scientific evaluation of NCD intervention effectiveness. This will assist implementing providers in enhancing the efficacy of their existing interventions and provide a greater understanding of the appropriate methods that can be best used in settings where accessing subjects is difficult. The evidence generated can be used to reduce the short and long-term economic and social burdens on the humanitarian response and host community public services but above all improve the health and wellbeing of Syrian refugees and Lebanese host communities.

Syrian Crisis and Mental Health System Reform in Lebanon

Rabih El Chammay

National Mental Health Program, Ministry of Public Health, Lebanon

Emergencies have proven to be good opportunities for mental health system reforms as it was shown in WHO's report "Building Back Better, Sustainable Mental Health Care". This intervention will describe how the Syrian crisis created a momentum that the Ministry of Public health use to start a mental health system reform by creating a national mental health program within working on scaling up services for Syrian refugees and Lebanese alike at the Primary Health Care level, reactivating the discussion around the legislation and preparing for a national consensus on a mental health strategy for Lebanon. In addition, the Ministry of Public Health is chairing a Mental Health and Psycho-Social Support Task force working under the Health Working Group and co-Chaired by WHO and UNICEF to harmonize and mainstream MHPSS in all sectors and in line with the national strategy.

POSTER PRESENTATIONS

Poster Presentations I
December 3: 10:30 – 11:00

Predicting the Health Impact of Lowering Salt Consumption in Turkey by Using the DYNAMO Health Impact Assessment Tool

Erdem Erkoyun[1], Kaan Sozmen[2], Belgin Unal[1], Hendriek Boshuizen[3]

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Introduction: The aim of this study is to estimate the effect of different daily salt consumption scenarios on future occurrence of ischemic heart disease (IHD) and cerebrovascular diseases using the DYNAMO Health Impact Assessment (HIA) tool in the population aged 30 and older.

Methods: DYNAMO-HIA was populated using data from Turkey to estimate the prevalence and incidence of IHD and cerebrovascular diseases in the year 2025. The data sources used in the model were: age and gender specific population in 2012 and number of birth projections (TurkSTAT), mean and standard deviation of daily salt consumption (SALTurk 2), relative risks on mortality from IHD and cerebrovascular disease, disability adjusted life years (DALY) weights (DYNAMO database), average DALY weight in the total population (estimated from YLDs from the Global Burden of Disease study), prevalence and incidence (from population studies) and excess mortality (estimated from cause of death registration) of IHD and cerebrovascular diseases. Three salt consumption scenarios were modelled: 1) Reference Scenario: Mean salt consumption stays the same as in 2012 until 2025 2) Gradual Decline: Daily salt intake is reduced steadily with 0.47 gram per year by lowering salt intake from bread by 50% and table salt by 40% by 2025. 3) World Health Organization Target: Daily salt intake is equal to the WHO's advice of 5 gram salt consumption daily during the entire period until 2025.

Results: The estimated prevalence of IHD and cerebrovascular disease for both genders in 2013 is 3.2% and 2.6% respectively, the incidence of these diseases in 2013 were 31 per 10000 and 21 per 10000 in the population aged 30 years and older. According to the Reference Scenario, it is estimated that the prevalence of IHD and cerebrovascular diseases will be 3.7% and 3.0% in 2025, while the incidence of these diseases will increase to 37 per 10000 and 25 per 10000 respectively. According to Gradual Decline Scenario, the absolute decline in the prevalence of both diseases will be 0.2% and the absolute decline in the incidence 5 per 10000. If Turkey were in line with the WHO Target, the absolute decline in the prevalence of IHD and cerebrovascular disease is 0.6% and 0.5%, while the absolute decline in the incidence will be 8 per 10000 and 7 per 10000.

Conclusion: This model indicates that Turkey can lower the future cardiovascular disease burden substantially by lowering salt consumption. Strong salt lowering policies should be implemented.

Effect of Water Pipe Smoking Among Syrian and Jordanian Pregnant Women on Birth Outcomes in Northern Jordan

Nihaya Al-Sheyab, Khalid Kheirallah, Rowa Al Fugaha

Jordan University of Science and Technology, Jordan

The prevalence of Waterpipe (WP) smoking has increased to reach nearly 9% among pregnant women in Jordan, which is considered high given the well-documented adverse negative effects of cigarette smoking on both pregnant women and fetuses. Pregnant women are a vulnerable group and using WP during pregnancy may expose them to unpleasant consequences. The association between cigarette smoking and adverse pregnancy outcomes including low birth weight and other adverse maternal consequences during pregnancy was established. Other Jordanian studies elucidate adverse pregnancy outcome if the pregnant women are active or passive smokers but the effect of WP smoking during pregnancy and birth outcomes still needs further research. Through clinical observation by the researchers, we noticed a significant increase in adverse pregnancy outcomes, especially those related to newborn health, among Pregnant Syrian refugees compared to those in Jordanian women. In Jordan, to the extent of the researcher's knowledge, there is no literature explaining how WP smoking affects birth outcomes to both Jordanian and Syrian mother and newborn baby as well. Therefore, the aim of this study is to explore the relationship between WP smoking and adverse pregnancy outcomes, especially anthropometric measurements of newborn, for Jordanian and Syrian women and their newborn babies and to find out whether pregnant Syrian women refugees in Jordan are at higher risk for more complications given the displacement because of war. Results are expected to be ready by November 2014.

A retrospective cohort study design will be used. All women (Jordanian and Syrian refugees) admitted to two main teaching hospitals, between August and October 2014), will be initially screened for tobacco use, and then categorized as per the exposure groups; control, water pipe only, cigarette only, or dual (cigarette and water pipe) smokers. Accordingly, a simple random sample of 160 will be selected from each exposure group; giving a total of 640 participants. All Jordanian and Syrian women who deliver at the two hospitals will be eligible to participate.

A structured questionnaire will be used to assess the exposure status and frequency and the main outcome variables. Comparison of outcome proportions by each exposure group will be used and adjusted relative risk (95% C.I) will be calculated. In addition, comparison of outcome proportions by nationality (Jordanian versus Syrian women) will be conducted to find out whether pregnant Syrian women refugees in Jordan are at higher risk for more complications given the displacement because of war. Results are expected to be ready by November 2014.

Prevalence and Risk Factors of Diabetes Mellitus (DM) Type II Among Primary Health Care Centers (PHCCs) Attendants: Al Najaf Al Ashref province, Iraq, 2013

Abdul Wahhab Jawad, F Al Lami, J Shakir, A Hameed, W Al Shaheed

Ministry of Health, Iraq

Background: The world prevalence of diabetes in 2010 among adults is estimated to be 6.4%. Between 2010 -2030, there is an expected 70% increase in numbers of adults with diabetes in developing countries and a 20% increase in developed countries. The prevalence in Iraq was 7.8% in 2010. In Najaf, there has been an increase in the number of adults with DM from 47,116 in 2009 to 72,873 in 2012.The objective of this study is to determine the prevalence and risk factors of DM among PHCCs attendants aged more than 44 years.

Methods: A cross sectional study was conducted between September and November, 2013 among 12 PHCCs selected randomly (systematic random method) from 38 PHCCs. All attendants aged more than 44 years were tested for blood sugar to detect cases of DM. Basic demographics and epidemiologic data gathered from all attendants, to identify potential risk factors.

Results: The total number of participants were 829 (322 male, 507 female), 135 of them confirmed as cases of DM (prevalence 16%). Male: female ratio 1:1, 82% of cases lived in urban area. The significant risk factors were overweight (BMI>25) [odds ratio 5.82, C.I 3.74- 9.08], family history of diabetes [odds ratio 9.07, C.I 5.94-13.87], residency in urban area [odds ratio 3.15,C.I 1.94-5.14], age (> 59 years) [odds ratio 2.63,C.I 1.74-3.98] and hypertension [odds ratio 2.16,C.I 1.41-3.30).
Conclusions: The alarming rising trend of diabetes prevalence in the Al Najaf Al Ashref constitutes a real challenge: There is a need to target interventions to people with obesity, hypertension, family history of DM, and older persons residing in urban area. Activation of diabetic control program in all PHCCs and promotion of a healthy diet and lifestyle modification are recommended.

Impact of the 2010 Popular Uprising: Ramification on Morbidity, Mortality and Social Determinants of Health in Four Countries from the MENA Region

Jara Valtueña[1], Sondus Hassounah[2], Salman Rawaf[3], Azeem Majeed[3]

[1]WHO and Department of Health and Human performance, Technical University of Madrid; [2]WHO Collaborating Centre for Public Health Education and Training, Department of Primary Care and Public Health, Imperial College London; [3]Department of Primary Care and Public Health, Imperial College London

Introduction: The Arab Spring has affected almost all countries in the Middle East. Since late 2010, the Arab world has entered a tumultuous period of change, not only social, economic or political, but also with significant consequences on health, not really well quantified yet. Non-communicable diseases (NCDs) are the leading death cause, representing 63% of the 57 million global deaths each year, comprising mainly cardiovascular diseases (CVD) (48% of NCDs), cancers (21%), chronic respiratory diseases (12%) and diabetes (3.5%). 80% of all these NCDs deaths (29 million) affects MENA region. This work examines the impact of the 2010 popular uprising in the MENA region (Tunisia, Libya, Egypt and Syria) on morbidity-mortality and social health determinants as part of the overall disease and socio-political landscape.

Methodology: A literature review using databases such as Medline, the WHO database, World Bank Data Repository and other global reports was conducted from 2008-2012. Keywords used for search and inclusion criteria were Eastern Mediterranean and Arab countries, uprising, morbidity, mortality, non-communicable diseases, chronic diseases, lifestyle, habits, nutrition, physical activity and biomarkers.

Results: NCDs were estimated to account for a mean of 87.4% and 91.2% of all deaths in 2008 and 2012, respectively, in the four countries of the MENA region. From 2008 to 2012, CVD has increased in all the countries except in Syria, where the percentage of deaths due to injuries increased from 10% to 48%. Diabetes percentage increased in Libya and Tunisia but decreased in Egypt and Syria, while cancer percentage increased in all countries except in Tunisia. Looking for NCDs indicators, obesity were on the rise from 2008 to 2012 while physical inactivity (PI) got the highest rates in the MENA region (around 43% of the adults). Current estimations show that PI is responsible for 12.5% of premature mortality being responsible for 7.8% of the CVD burden, 9.6% of the type 2 diabetes and 28% for the cancer burden. It is estimated that the mean life years potentially gained with elimination of PI will be around 0.956
Conclusions: NCDs, especially CVD, are the leading causes of death in the MENA region after the uprising except in Syria, where injuries have had a higher impact. Physical inactivity has a major health impact and need to be considered. Despite the existence of national plans for the management of NCDs, it is acumen to affirm the importance of activation of national plans, programmes and policies and strengthen health systems for investing in prevention and control of NCDs.

Correlation Is Not Causation: The Rise in Prevalence of NCDs amongst Palestinian Refugee Populations of the Gaza Strip since the 2006 Elections

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Leach-Kemon (2014) asserts that non-communicable diseases (NCDs) are responsible for 62% of early deaths within the Palestinian populations of the West Bank and Gaza Strip, and Sabatinelli et al (2009) comment that the health profile of those refugees living outside these areas is increasingly being marked by NCDs, in particular Type 2 diabetes and obesity. This paper forms part of a considerably larger ongoing study into NCDs amongst Palestinian refugee populations, and focusses on the situation within the Gaza Strip since 2006.

According to the Palestinian Central Bureau of Statistics (2011), 67.5% of the Gaza Strip's population are refugees, and El Kishawi et al (2014) found that these female refugees were nearly 10% more likely to be overweight or obese than their sisters in urban locations were. Excess weight has been identified as a key risk factor in the development of both Type 2 diabetes and heart disease, which is the leading cause of death in Gaza (Information Centre of the Ministry of Health 2013). It also is a risk factor in certain forms of cancer, particularly breast cancer, which is the most prevalent form of cancer within Gaza (Al Mezan Centre 2012), and cancers now form the second largest cause of death amongst Gazans (ibid). Covering a period from the election of Hamas in 2006 until the end of Operation Defensive Shield in 2014, this paper investigates the increasing NCD prevalence in Gaza camps, through the primary lens of breast cancer statistics.

Factors examined by the authors include: the blockade of Gaza, which has resulted in the increase of unsafe pesticides for agricultural use; the restrictions on movement for citizens of the Strip, limiting both access to treatment externally and also exacerbating over-crowding and access to safe water; the incursions of Israeli armed forces into Gaza, causing significant damage to health facilities (there is, for example, no radiography available within Gaza) and arguable contamination with carcinogens; the financial problems that periodically beset the Hamas government, whether as a result of international sanctions or internal disagreements with Fatah, which mean not only that medical staff are not paid, but that the already limited capacity of hospitals and medical centers to buy medical equipment and drugs is further decreased.

Poster Presentations II

December 3: 15:30 – 16:00

The Use of Registry Data to Inform Evidence on Cancer Inequalities in Four Arab Countries

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Background: Studies utilizing cancer registry data have contributed to expanding knowledge on cancer inequalities in high-income countries. Though registries are well established in a number of Arab countries, research evidence on social inequalities in cancer incidence and survival in the region is virtually absent.

Objectives: This study set out to describe the comprehensiveness and quality of data collected on cancer registry forms in Lebanon, Jordan, Kuwait, and Oman. It specifically focused on evaluating the capacity of each registry to inform evidence on cancer inequalities.

Methods: We carried out textual analysis of registration forms, annual reports, and published articles on cancer in Lebanon, Jordan, Kuwait, and Oman. Standards of the International Agency for Research on Cancer (IARC) and cancer publications from the US and Denmark were used to evaluate the comprehensiveness and quality of the socioeconomic data collected and the evidence on social inequalities in cancer.

Results: Cancer registries in the four Arab countries follow international standards in recording biomedical data but either do not collect socioeconomic data altogether (Lebanon) or do not link this data to cancer incidence and survival (Jordan, Kuwait, Oman). In their current state, the four registries cannot be utilized to produce evidence on social inequalities in cancer in the Arab region. Whereas some reasons for the lack of data and evidence relate to limitations in the health system overall, others can be addressed by additions to the registration forms and better monitoring of the data collection process.
Conclusion: Cancer registries that gather social and demographic data can inform evidence on social inequalities in health. Recommendations will be presented on how to incorporate simple measures based on existing evidence and priorities. With better cancer registration data, research evidence can inform better policies to reduce cancer inequalities.

Algerian National Health System, Achievements, Challenges and Prospects

Boualem Ouzriat

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The presentation shows the main stages in the evolution of the national health system in Algeria since the French colonization (1830) to date. We present the characteristics of each period and the major social and health indicators, referring malfunctions that have existed, the corrections and challenges faced. We also address the effects of structural adjustment programs implemented during the 80s and the impact on health of the population through the epidemiological, social and economic transitions.

The colonial period (1830-1962) was characterized by a highly unequal with a health disparity in space, located in major cities providing care to a predominantly European population. The post-independence period (1962 - 1972) was characterized by the mass exodus of doctors to France; the number fell from 2500 to 630 doctors, with critical failure in health facilities, which were mostly concentrated in the major urban centers of the north. Some indicators for this period included an infant mortality rate of 180 deaths/1000 live births, a maternal mortality rate of 350 deaths /100,000 live births, a rate of assisted childbirth <20%, a life expectancy of 50 years, 1 doctor per 30,000 inhabitants, 1 dentist per 100,000 inhabitants and, finally, 1 pharmacist per 300,000 inhabitants. The period of 1973-1983 was characterized by the introduction of free access to medical care in 1974, reform of medical studies, construction and equipping of new public health facilities (hospitals, health centers, rural maternity). These major actions have helped improve the health situation, but overall regional disparities have persisted.

Health reform undertaken since 2000 consisted of a series of organizational, managerial and financial measures. And in strict compliance with the Algerian Constitution, Article 54, all citizens have the right to the protection of their health. Some indicators for the improvement of the general situation (2010) in this period included an infant mortality rate of 27/1000 live births, a maternal mortality rate of 120/100000 live births, a life expectancy of 72 years, 1 doctor / 900 inhabitants, 1 dentist / 3700 inhabitants, 1 pharmacist / 6200 inhabitants, 1 nurse / 990 inhabitants, 1 midwife / 2000 inhabitants, immunization coverage of children aged less than 24 months of 98%, a rate of overall contraceptive prevalence of 66% and a rate of deliveries in health care of more than 88%.

The State of Research into Major Non-Communicable Diseases in Select Middle Eastern Countries: The Wealth-Research Correlation

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Non-communicable diseases (NCDs) account for 50% of deaths in the Middle East (ME), six out of the ten countries in the world with the highest prevalence of diabetes can be found in the ME and almost 25% of the region's population suffers from hypertension.

The majority of ME countries have significant resources to invest in research focused on NCDs. However, there remains a major gap between the regional needs for research and development into NCDs and the motivation and/or capability of these countries to address this area of science and technology. Our analysis utilizes validated, high-resolution methods to understand the state of NCD research in the 13 major research active ME countries to help promote strategic foresight and regional dialogue in this critical health domain. Three major NCD diseases were analyzed across these countries for the 10-year period 2002 - 2011: cancer, cardiovascular disease and diabetes.

During this period, these countries produced a combined 13,791 papers in oncology, 16,006 in cardiology and 3,422 in diabetes. A comparison of biomedical research outputs with national wealth (Gross Domestic Product) suggested that most major ME countries were falling well short of their expected research outputs in comparison to their national wealth. Very few countries (Turkey, Egypt and Jordan) were publishing about as much as expected.

The correlation of research with the relative burden of disease from cancer, cardiovascular disease and diabetes in the leading ME countries was reasonable. In particular, there was a large relative burden of disease from diabetes and consequently a high commitment to research in this sub-field. Turkey has also responded to its high burden of cardiovascular disease in its biomedical research agenda. A comparison of the distribution of oncology research by cancer site gave a much poorer correlation.

Our analysis highlights the need to build a comprehensive research network in ME countries. This network needs to be integrated with population education and health care reform to ensure NCDs (a growing epidemic in ME countries) are managed cost effectively and appropriately using the best available evidence.

Mental Health and Quality of Life of Disabled Palestinian Children in the Gaza Strip

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Aim: The aim of the study was to investigate the prevalence of mental health problems and quality of life among Palestinian disabled children.

Method: Subjects: The sample consisted of 391 disabled Palestinian children in the Gaza Strip, selected randomly from the database of two NGOs working with such group of children. The age of children ranged from 6-18 years with a mean of 11.73. Instruments: The children and adolescents demographic data were collected by questionnaire and included sex, age, class, and place of residence, Gaza Child Health Study Scales (parents and children forms), and The Pediatric Quality of Life Inventory generic core (version 4.0) scale.

Results: The results showed a mean value of 1.33 for conduct disorder, 5 for oppositional disorder, 6.75 for overanxious, 6.36 for separation anxiety and 7.57 for depression. Children with physical and visual disabilities reported more overanxious problems and more separation anxiety compared to children with other types of disabilities (hearing and mental disabilities). Children with physical disabilities reported more depression compared to children with children with visual disabilities. Period of disability in children was not significant for any mental health problems. According to parents, mean conduct disorder was 1.94, mean oppositional disorder was 6.09, mean overanxious was 7.47, mean separation anxiety was 6.48, and mean depression was 9.6. The study showed that mean depression in boys was 10.4 compared to 8.9 in girls. The study showed that children with disabilities due to war on Gaza reported less separation anxiety compared to children with disability due to home accidents and genetic problems, but they had more separation anxiety than children with disabilities due to home accidents. In addition, children with disability due to home accidents were more overanxious than the other group (disability due to war on Gaza). Period of disability in children was not significant for any mental health problems. Quality of life of children was scored by the children themselves, mean emotional functioning was 8.24, mean social functioning was 6.65, mean school functioning mean was 9.17, and mean cognitive functioning was 8.57. The study showed that mental health problems rated by children such as conduct disorder was positively correlated with emotional and cognitive functioning, oppositional disorder was correlated with emotional, social, and cognitive function, overanxious disorder was correlated emotional, school, and cognitive functioning, separation anxiety was correlated emotional functioning, and depression correlated with emotional, social, and cognitive functioning.

Health System Constraints in Tunisia: The case of Diabetes management

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Background: Tunisia is a Northern African country experiencing a complex of intersecting transitions at different levels: demographic, economic, epidemiological and recently political. In response, national health care system has come under mounting pressure, struggling to keep pace with these profound transformations.

Objectives: To shed light into the health care system in this critical historical juncture, we addressed quality of care provided in the field of Diabetes care, which is characterized by a widespread consensus on good practice patterns and international convergence on measures for processes and outcomes of care.

Methods: This study is planned to be conducted in 2014 in three health care centers reflecting different levels of care: (i) a primary health care center (PHC), (ii) a regional hospital, and (iii) the only reference center for diabetes (INNTA) located in the capital Tunis while the two first ones were located in the third most populated city of Tunisia Nabeul, located in the north east. Unpredictably, the study included only the PHC and the INNTA because of one departure and one long-term leave of the only two specialists integrated in the regional hospital. For the included centers, 100 and 92 Diabetic patients were randomly selected in respectively from the PHC and INNTA outpatient clinics. They were interviewed and their medical records reviewed, in order to collect a set of process indicators related to diabetes quality of care such as proportion of patients who would have HbA1c and lipid measurements, home glucose monitoring, screening for nephropathy hypertension and CHD and Foot/Eye care.

Results: When the study took place, there was no specialized outpatient care in public sector for Nabeul's diabetics. When needed, patients were directly referred to the third line (INNTA). Both studied centers, met quality of care standards at relatively low rates compared with ideals, except for HbA1c, triglyceride and cholesterol measurements (over than 85% of patients in both centers). Unexpectedly, adherence to quality standards was in general significantly better in the PHC especially for CHD/Hypertension screening and foot care. Nevertheless, HDL and microalbuminuria remains rarely prescribed. However, the most striking fact is that no LDL measurement was performed even in the INNTA.

Conclusion: Deserting regional hospitals from specialists is central to the current debate about reforming health care system. In our study, bypassing second level of care seemed to be responsible of overloading third line and consequently reduced quality of care. Qualitative research is needed to confirm and explain such hypothesis.

Non-Government Organization's Contribution in Chronic Non-Communicable Diseases Primary Care Intervention in the State of Kuwait

Ebtisam Alhuwaidi, Khalid ALenezi

Ministry of Health, Kuwait

Chronic non-communicable diseases (NCD's) have been identified globally as a major hinder in community health all over the world. The recently adopted Global Action Plan for the Prevention and Control of NCDs 2013-2020 is considered an important cornerstone in providing a road map for health authorities in the Eastern Mediterranean in that respect. Most developing countries in this region do not comprehensively address the social determinants of health. Civil society groups and non-governmental organizations do not address chronic diseases as part of their health agendas because of lack of resources within their societies and the socio-political influences within these societies.

Our aim is to demonstrate an integrated approach between all relevant stakeholders within a prevention and control framework for NCD's in the state of Kuwait with practical future implications for policy development, priority setting, and strategic design, while capitalizing on their strengths and building on their existing efforts.

This paper discusses the impact of a non-governmental organization in providing a synergistic effect for a local health authority intervention program toward the management and the prevention of obesity within their local community with the possibility of generalization their successes in the form of a case report from Kuwait.

Poster Presentations III
December 4: 10:30 – 11:00

Syrian Guests in Turkey and Health Services

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There are currently 2.9 million Syrian refugees registered in the region, with numbers growing at a rate of 100,000 people every month, according to UNHCR. After the conflict began in March 2011, Turkish authorities estimate the total number of Syrians in the country to be over 1 million (1.126.680). As of 8 August 2014, Turkey is hosting over 908.647 registered guests both in and out of camps from Syria. This represents 30 per cent of all Syrian in the region. Currently health services are given in 10 province (Hatay, Osmaniye, Şanlıurfa, Kilis, Gaziantep, K.Maraş, Adıyaman, Adana, Malatya, Mardin) at the 21 camps since 29 April 2011.

Public health and health care services including reproductive and women health / child and adolesant health (vaccination, child and pregnant monitoring, iron supplement), mental health, nutrition, hygiene, NCDs and cancer, communicable diseases, malaria, tuberculosis, envitomental health (water sanitation, chlorination, waste control, shower and toilet facilities) have been provided. Three hundred ninety million PPP US $ has been spent for health care services until now. The total number of outpatient care services that were given to the Syrian guests in the camps were 2,007,769 and the number of patients referred to the hospitals from the camps were 327,995. Totally 43,727 inpatient services including 33,766 surgical operations were provided. Also during this period, 7,976 deliveries belonging to Syrian women were done in Turkish hospitals. In addition, significant efforts are being made at the local level to address the urgent needs of the growing urban (especially Istanbul, Ankara, İzmir, Bursa, Konya) Syrian population outside the camps.

Besides the free access to health services for all Syrian guests (living in and outside of the camps), Turkey is providing food, sheltering and education as well as vocational trainings in camps. Turkey will continue to provide protection and assistance to Syrians, however it is also calling for support from the international community as a sign of solidarity and to ensure the same level of assistance to be sustained in the camps and more importantly, to ensure that assistance can be delivered to vulnerable people in urban areas. Amongst the provided health services NCDs are unfortunately being ignored because of the importance of the more pressing needs of shelter, nutrition, security and communicable diseases.

Tunisian Military Health Service's Humanitarian Response during the Libyan Crisis: February - June 2011

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Since February 23, 2011, Tunisian Armed Forces have been working in collaboration with different actors to provide assistance and health support thousands of migrants and refugees from many nationalities who were fleeing the ongoing warfare in Libya. Refugee camps were implemented close to Ras-Jedir border points (Southeast Tunisia) in a Saharan environment. Several Governments, UN agencies, and many national and international NGOs were involved in this humanitarian mission and did provide their support. Since April 16, 2011 and with the occupation of Wazin – Dhehiba crossing border point in the South-west of Tunisia by the Libyan revolutionaries, a 2nd axis of arrival has been created, thus seeking new humanitarian aid and health services' needs.

Within humanitarian framework, some missions have been assigned to Tunisian Military Health Service (MHS). It mainly consists in facing a possible mass casualty flow arriving from Libya on Tunisian borders, offering medical support to the refugees in different camps and coordinating the humanitarian aid provided. During the mission, MHS faced certain difficulties most of them were related to Saharan environment specificities, refugees' cultural and religious diversity, camp status, repatriation's long waiting list, etc.

The authors highlight the health contingency plan elaborated to guarantee the success of this mission. They also underscore the MHS on site team's activities insured which included more than 27,500 medical consultations carried out and around 400 injured in action supported from both sides. At the same time, others activities were covered in coordination with the various actors present on site. It involved camp hygiene control, communicable and non-communicable diseases epidemiologic survey, mental health promotion and maternal and infantile health promotion among others.

Clinical Audit on the Provision of Diabetes Care in the United Nations Relief and Works Agency for Palestine Refugees in the Near East (UNRWA)

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[1]UNRWA HQ, Amman, Jordan; [2]World Diabetes Foundation (WDF)

Background: UNRWA has delivered comprehensive primary health care services to Palestine refugees in Gaza, West Bank, Jordan, Lebanon and Syria for over 65 years. There is significant change is the epidemiological transition of disease burden nowadays, the main causes of mortality and morbidity among Palestine refugees are non-communicable diseases (NCDs) such as diabetes mellitus (DM), cardiovascular diseases and cancer. Behaviour risk factors such unhealthy diets, physical inactivity and smoking are increasingly prevalent among Palestine refugees. A total of 114,911 diabetic patients were registered at UNRWA health centers by the end of 2012.

Objectives: The objective of this clinical audit was to acquire evidence-based information on quality of diabetes care in health centers served by UNRWA.

Methodology: A total of 1,600 patients with DM were included in the audit. Patients were interviewed and examined according to a standardized data collection sheet developed jointly by UNRWA and World Diabetes Foundation (WDF). The sheet included questions on past medical history, current findings, laboratory tests, clinical management and diabetes complications. Comprehensive clinical examination, patient interview and record review to complete the questionnaire were carried by experienced UNRWA experts. Blood samples were collected and tested for HbA1c at the internationally recognized laboratory at the Augusta Victoria Hospital in East Jerusalem. Data were entered and analyzed with Epi-info 2000. Patients provided informed written consent.

Main results: Out of 1,600 patients enrolled in the audit, 68 (4.3%) were affected by type 1 diabetes and 1,532 (95.7%) by type 2 diabetes. A considerably high proportion of them (1,102 or 68.5%) have co-morbidity with hypertension. 1,109 (63.7%) were female: this high proportion of female patients is probably the reflection of general attendance pattern of patients in UNRWA health centers. About risk factors, one significant finding was the very high proportion of obese and overweight: 1,024 (64.0%) and 421 (26.3%), respectively. Smokers were 313 (19.6%). Another shortcoming identified was the control rate for diabetes based on the HbA1c tests, is much lower than that measured using PPG. While 44.8% of patients have PPG ≤ 180mg/dl, only 452 (28.3%) have HbA1c < 7%.

Interpretation: The audit demonstrated the poor sensitivity of two-hour PPG testing in measuring diabetes control compared with HbA1c. This could mean that UNRWA has systematically over-estimated control rates of its patients. More than 90% of patients are either obese or overweight. Without addressing such lifestyle issues, UNRWA may not achieve sensible results in diabetes care.

Prevalence Rates of Selected Non-Communicable Diseases (NCDs) among the Syrian refugees in Jordan and Jordanians

Safwan Omar Al Omari

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Background: Jordan hosts the largest Syrian refugee burden in the region. According to UNHCR, more than 600,000 Syrian refugees are in Jordan by 1 October 2013 and 1,500-3,500 more cross daily into Jordan. It is estimated that there will be more than 1 million refugees in Jordan by the end of 2014. About 70% of Jordan's Syrian refugees are living outside the camps. Aim of the study: The aim of the study is to spot the light on the negative and disastrous consequence of the Syrian Civil War on the prevalence of Non-communicable diseases (NCD) among the Syrian refugees in Jordan.

Method: "Human Doctor" project is a large campaign, which was held in AL MAFRAQ, by the IFMSA, in JUST and "Flying Doctors of America". An awareness campaign for the resident population, Jordanian and Syrian, in that area was performed. A total of 2,000 individuals visited our camp (900 Jordanians and 1100 Syrians) and underwent specific medical tests and measurements (Blood pressure, Glucose level, Body mass index). Medical advices regarding health status were provided to the visitors. A questionnaire-based survey was done to collect data on different diseases. Data were compared between Jordanians and Syrian refugees.

Results: The prevalence of hypertension, high blood cholesterol, diabetes, overweight and obesity for Jordanians were 22%, 7.5%, 17%, 30.5% and 36% respectively. While for Syrians, the prevalence rates were 30.5%, 11%, 22%, 32%and 40% respectively. The prevalence of mental disorders in Syrians was about 27% while in Jordanians was 10%, of renal diseases in Syrians was 5.5% in compared to 2% in Jordanians, of cancers was a little bit higher in Syrians, of autoimmune diseases was nearly the same in both populations (less than 1%) and of Infectious and Communicable disease was much higher In Syrians (20.5%). it was 11% in Jordanians.
Conclusion: There is a big difference in the NCD prevalence between Syrian refugees and Jordanian population. One can conclude the huge impact of the Syrian conflict on the Syrian refugees' health status.

Recommendations:
1. Jordan remains committed to provide humanitarian aid to Syrian refugees as it is the key viable protection and assistance space for Syrian refugees.
2. Jordan can no longer bear alone the financial impact of the Syrian refugee crisis it is shouldering during its current fiscal situation.
3. Lack of funding in Jordan's health sector poses grave risks to health status and social stability, and hence Jordan's public health system is dangerously overstretched.
4. Jordan needs now and in the coming years, a significant investment from the donor community to sustain its health services for Jordanians and Syrian refugees.

Obesity Perception and Anemia Status among Palestinian Women

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Obesity is considered a disease by its own and it is a major preventable risk factor to anemia, diabetes and chronic heart diseases. It has been shown to be the first killer in the world that negatively affects economics and health. In 2005, there were at least 400 million obese adults in the world and this is projected to increase three fold by 2015. Various obesity determinants lead to its epidemic and escalating rates among Palestinian women. We aim to investigate women perception and determinants of their weight, and determine their hemoglobin level. Data from the Palestinian Family Health Survey (PAPFAM), which was conducted by the Palestinian Central Bureau of Statistics (PCBS) in 2010 were analyzed. We were interested in women's evaluation of their weight to height (BMI), and divided them into obese and non-obese. We include 8,873 non-pregnant women aged 15-49 regardless their marital status, who completed the questionnaire. Of these, blood was successfully extracted from only 2,301 persons for hemoglobin measurement. Data were analyzed using the Statistical Package for Social Sciences (SPSS) program, version 17.

Results showed that 38.8% of women consider their weight to be more and much more than it should be compared to their height. Surprisingly, 69.7% of them did not practice any physical exercise. In addition, 32.4% considered their health much worse compared to the last year. Moreover, 28% complained from a health problem during the past two weeks. When asked "Do you suffer from Anemia", 88.3% reported a negative response, although 24.3% were truly anemic. Despite this, 15.3% did nothing about it, and 13.7% relied on diet, while 71% tended to use medical treatment to improve their anemic status. In regression analysis, well-off women were twofold more likely to be obese than middle-class and the poor. Women with four and above children were more likely to be obese than those having less children. Women who frequently exercised were more likely to be obese. Women who evaluated their health to be poor were twofold more likely to be obese than their counterparts. Camp dwellers were more likely to be obese than other localities. Older women were nine fold more to be obese than younger women aged 20 or below .Palestinian women perception to their body weight compared to height is apparently high; which explained their tendency to exercise more, even in the presence of different life constrains that faces them, especially the poor and the camp dwellers. The self-rated health among obese women was poor, especially in those who are older and having more children, which guide us to the appropriate targeting for a group that should be followed and advised to increase their adherence to increase physical exercise and healthy food consumption, especially anemic obese women.

Syrian Refugees in Turkey: A Document Analysis

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Introduction: Turkey has been implementing an "open border policy" towards Syrian refugees since March 2011.The numbers of refugees in Turkey increased dramatically. This study aims to determine the situation of Syrian refugees in Turkey and the priority areas for future studies.

Methods: This qualitative study, based on a document analysis was performed between June and August 2014. Related documents published in 2011-2014 were reached and 12 documents were analyzed by a guideline. During the analysis, the purpose of the documents, current legislation, number and distribution of refugees, essential needs, priority problems, solutions and the fields left incomplete within the documents were studied.

Findings: Eight of the documents were prepared by NGOs, two of them by Turkish government and two of them by United Nations. Nine documents were dealing with living conditions of Syrian refugees, while the rest were about impact of the situation on Turkish citizens living close to the border. In the documents, three terms were used to describe Syrian population: "seekers", "guests" or "refugees". In all the documents, it was emphasized that needs of the refugees should be met by Turkish Government. Only 36 % of refugees have been living in the camps, where women and children make up 75% of this population. There was no accurate number for refugees residing out-of-camp and their conditions were the worst. It is reported that Syrian population will increase to 1.0 million by the end of 2014 with up to 20% will be vulnerable and Turkey's socio-economic responsibilities will increase. In the documents, problems were discussed under the following headings: unregistered population is large and unstable; unmet needs of non-camp Syrians, infectious diseases, mental diseases, problems of health system; economic problems, cheap labor force and exploitation problems, increasing tension and security in host communities, discrimination and stigmatization, violence against women. Attitude towards refugees in the host community was summarized under three headings: solidarity, charity for sufferers and discrimination. Some of the documents were biased, opinions of female refugees were not respected, and there was no adequate information about the methodology of qualitative researches.

Conclusion: The analyzed documents provided some general data about Syrian refugees; yet, disadvantaged groups were not discussed thoroughly. In terms of health related issues; beside acute conditions and infectious diseases, non-communicable diseases and chronic conditions should also be evaluated. These two issues were identified as priority research areas.

Poster Presentations IV
December 4: 15:00 – 15:30

Prevalence of Diabetes and of Hypertension in a Cohort of Tunisian Armed Forces

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Data related to the health of the armed force personnel remain rare in Tunisia where we observe an epidemiologic transition characterized by the increase in the non-communicable diseases. This population is unique owing to its professional lifestyle based on regular physical activity. It is subject to a medical selection at its incorporation according to very strict aptitude standards.

This study aim was to estimate the prevalence of diabetes and hypertension in a cohort of personnel exerting in different units of the armed forces established in the Tunisian south. South Unit Armed Force Cardiovascular Risk Factor survey constitutes the data source of our study. This was a cross sectional survey carried out in 2008 in a representative sample of 709 adult male subjects, civilian and military active personnel, aged from 20 to 59 years. Participants underwent anthropometric and biological measurements.

The prevalence of diabetes (G0 ≥ 7.0 mmol/l) was 3.8% in age class 35 years and above and 6.7% in age class 40 years and above (p<0.0001). The prevalence rates of hypertension (140/90 mm Hg) in these age groups were, respectively, 7.6% and 12.6% (p<0.0001). All cases of diabetes and hypertension notified are detected during the survey. The prevalence of high fasting glucose (G0 ≥ 6.1 mmol/l) was significantly higher among the personnel of the common services (14.2%) compared with 4.5% for the Army and 6.8% for the air force (p=0.024). it was also higher among the civilian personnel of the armed forces (17.4%) compared with 7.9% in the soldiers (p=0.012).

In age class 35 years and above, the prevalence of hypertension is significantly higher at air force personnel (15.1%) compared with 2.9% for the Army and 9% of the common services (p=0.01). However, there was no statistically significant variation according to the category of the rank in our cohort. The mean values of systolic blood pressure, Body Mass Index, glycaemia, cholesterol and triglycerides were significantly higher among diabetics and those with hypertension.

In order to be able to preserve the weak prevalence of diabetes, hypertension and certain cardiovascular risk factors in military population compared with the national population, it is recommended to put in place a prevention program that must take in account the specificities of the military environment.

Mental Health of Syrian Refugees; A Pilot Assessment among Adolescents

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Dept. of Public Health, Faculty of Medicine,
Jordan University of Science and Technology

Aim of the study: To assess level of post-traumatic stress disorder and associated factors among Syrian adolescents seeking refuge in Jordan.

Methods: A sample of four schools (2 male and 2 female schools) assigned for Syrian students in Al-Ramtha city was used. All adolescent students aged 13 and above who consented to participate in the study were asked to fill a structured computer –assisted questionnaire.

Results: A total of 206 Syrian students (mean age [SD] =14.9 [SD=1.3] years) participated in the study. The majority consisted of girls (54.4%), living in rented houses (92.6%) and reported having major reduction in family income (52.9%). Mean length of stay in Jordan was 1.8 year (SD=0.8). About one-third (34%) witnessed injury of a family member and 29.6% witnessed loss of a family member.

Mean Post Traumatic Stress Disorder (PTSD) Score was 42 (SD= 10); ranging between 19 and 61. The rate of PTSD (moderate to severe symptoms) was 81.3%. Mean PTSD correlated negatively with the social support of the family (r = - 0.19; p-value <0.01) and significant others (r = - 0.18; p-value <0.05), but not with friends' social support (r = -0.08). Multiple logistic regression analyses indicated that PTSD was significantly negatively associated with social support, after controlling for the effect of other variables. The rate of depression in the study was 32.5%. Multiple logistic regression analysis indicated that depression was significantly positively associated with loss or injury of a family member. The vast majority (92.8%) of study sample attributed what happened to them as God's will. However, 61.1% were questioning, "why God does that to me".

Conclusion: PTSD measures are higher than reported in other studies of adolescents in war zones. Evidence-based public health interventions are a priority among this vulnerable population.

Immigration and Properties in Manisa City in Turkey

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Introduction: Immigration causing psychosocial stress, malnutrition, problems in both health services and sanitation is a very important public health problem. The aim of this study is to evaluate the prevalence and reasons of immigration and association with socioeconomic factors in Manisa, Turkey.

Methods: This is a cross-sectional and population based study conducted in Manisa city of Turkey. The universe is 1,317,917 people living in Manisa above two years of age and registered to a family physician. The minimum sample size was estimated as 1337 assuming a prevalence of 2% with 95% confidence interval then enlarged 30% to 1740. Dependent variable was "immigration to Manisa or replacement in the city in last five years" and entitled as "immigration". Independent variables were age, gender, education level, occupational status, income per month, income perception and the reason of immigration. The questionnaires were conducted face-to-face interview method by trained interviewers in family physicians' offices. Descriptive statistics were presented as percentages, means or medians (min, max). Chi square and trend for chi square test were used for discrete variables; Mann Whitney U was used for continuous variables. P<0.05 was considered significant.

Results: The response was 74.4% with 1295 interviews. Of these 48.2% were males, 41.0% were literate or primary school graduate, and 12.2% were university or higher graduate. Median value of age was 35(2-89) years, income per month was 1100(0-22.500) TL. The rate of immigration was 14.6%. The frequent reasons were employment (29.8%), marriage (12.2%), moving own house (10.1%), sociocultural (7.4%), job opportunity (5.9%), negativity of house (5.9%). Median age of immigrants (27 years) was lower than nonimmigrants (38 years) (p=0.001). Median income of immigrants (1500 TL) was higher than nonimmigrants (1000 TL) (p=0.001). There was an association between occupational status and immigration (p=0.001). The highest frequency was seen among students (30.1%), professionals (21.5%), unemployed people (21.1%), temporary workers (16.5%), people out of labor (13.2%), and wageworker (12.9%). The lowest frequency was seen among tradesman (5.6%), agricultural laborer (7.7%), and employer (8.3%). As education level increased, immigration frequency increased (p=0.001). The immigration frequency was 11.0% among illiterate group, 11.4% among literate or primary graduate, 16.1% among secondary graduate, 24.2% among high school graduate and 25.3% among university or higher graduate.

Conclusion: The most frequent reasons of immigration were employment and marriage. According to occupational status, the highest frequency of immigration was seen among students, professionals and unemployed people. Providing job and education opportunities, job security and permanent position may lead solutions for immigration.

Evaluation of Net Migration Rates and Sociodemographic Aspects of Migrants in Turkey between the Years 2007-2013

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Background: The data and evidence about migration is limited and has not been examined except from a few regional studies in Turkey. The aim of this study is to determine and compare the internal migration rates in Turkey 2007-2013 and immigration in 2000, considering age groups and education levels of migrants.

Method: This descriptive study is conducted in August 2014. The data are obtained from Turkish Statistical Institute Database which is an address-based registration system for the whole population in Turkey for years 2007-2013. For the sake of comparisons, Turkey is divided to 12 regions that have similar geographic and socioeconomic aspects. Net migration rate is calculated as '(in migration-out migration)/total population of the region'. First, net migration rate of the regions are compared for years 2007-2013. Second, age groups and education levels of migrants in the regions with the highest/lowest migration rates are examined. Third, proportion of immigration from 50 countries to Turkey in 2000 are examined.

Results: Net migration rates in 7 of 12 regions were below zero. Considering 5 regions with positive net migration rates, 2 of them have increased between 2007 and 2013. These are Istanbul and Western Anatolia with an increase of 2.2 and 1.2 fold, respectively. The region with the highest rate of net migration is Eastern Marmara with 12.6‰ in 2007 and 6.6‰ in 2013. In Eastern Marmara, the highest in-migration is among '20-24' and '15-19' age group with an increase of 11.1% and 41.2% respectively from 2007 to 2013. Considering the education level of the migrants in this region, 45.6% were high school/over graduates and 17.8% were illiterates in 2008 and 59.7% were high school/over graduates and 5.7% were illiterates in 2013. The region with the lowest rate of net migration is Northeastern Anatolia with -26.1‰ in 2007 and -19.2‰ in 2013. The highest out-migration is among '20-24' age group with a decrease of 17.7% from 2007-2013. Considering the education level of the out-migrants, 40.1% were high school/over graduates in 2008 and 44.9% in 2013 and 17.3% were illiterates in 2008 and 23.5% in 2013. Considering immigration to Turkey, 66.0% of immigration is from 'European', 8.0% from 'Eastern Mediterranean' and 26.0% from other countries. The highest immigration is from Germany (31.0%) and Bulgaria (12.0%).

Conclusion: Internal migration rates have decreased since 2007 but are still high in the western regions. Further studies on the reasons of high migration rates are needed to create effective social policies.

Barriers Facing Syrian Refugees with Non-Communicable Disease Living In Community in Mafraq Jordan

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Background: Mafraq area situated in north Jordan with the longest borders with Syria and because of the geographical nearness has the highest number of Syrian refugees. A high percentage of those with non-communicable diseases are elderly with diabetes and hypertension.

Methods: One hundred Syrian refugees with non-communicable diseases (NCD) were selected; the household was identified through door-to-door inquiry to fill a pre-structured questionnaire that was tested and validated by piloting on 15 refugees. Analyses was done using Access software package.

Results: Of the sample, 70% female and 30% males, 98% between age of 40 and 70 years old and 2% children less than 12 years; of these 50% with hypertension, 20% with diabetes, 25% with both hypertension and diabetes, and the remaining 5% with other NCD. All the sample were refugee more than 18 months, 90% of patient were given alternative drugs 60% goes to MOH as main care provider, 30% goes to United Arab Emirates hospital, 5% goes to AID society, and 2% goes to other societies. 80% reported that drugs are partially available, specialized doctors are not always available, 70% of patients cannot determine if they are controlled or not, 25% reported that they are uncontrolled and only 5% are controlled which they relay to self-caring. 40% reported that they needed private doctor but could not go because of money. When the patients were asked about lab, they reported it is available with difficulty, and 70% reported last lab was 6 months ago, 20% 3-6 months and only 10% reported within 3 months.

Discussion: Syrian refugees with NCDs are suffering both from being refugees and having a chronic disease that needs medical care including counseling, lab tests, and medications. The jordanian Government has opened all public hospitals and medical centers for refugees legally located for free, but the problem is the huge number of refugees that overburdens the health system. Differences in medications between Jordan and Syria and the psychological impact of being a refugee make it very difficult to control hypertension and diabetes. This situation is worst for illegally situated refugees as they are not allowed to go to MOH centers. Syrian refugees with non-communicable disease need support from international communities for the care for their diseases.

The Effects of Social and Economic Indicators of Health on Chronic Diseases in Manisa Province, Turkey

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Background: The aim of this study was to investigate the effects on chronic diseases of the socioeconomic health indicators of household income, occupational status and living conditions in Manisa Province, Turkey.

Method: This was a population-based, cross-sectional study. It was calculated that the total number of people who need to be contacted for the lowest prevalence of 2%, a 0.75% estimated error, a 95% confidence level and 30% reserve of people was expected to be at least 1740. Dependent variables were chronic diseases (coronary heart disease, cerebrovascular diseases, hypertension and diabetes). Independent variables were age, gender, household income, occupational status and living conditions. Information on chronic illnesses was obtained according to the history provided by the individual or relatives and friends. The program SPSS 15.0 was used for data analysis. Data were shown as percentages, means±SD. Categorical variables compared with Chi-square test. Statistical significance was accepted at the p<0.05 level.

Results: The final interviewed sample included a total of 1,295 participants with a mean age of 36.3 ± 21.2 years; 48.2% (n = 624) were males. It was found that 6.6% of those aged 15 and over were unemployed, 7.3% were students, 31.3% were outside the labor force, 15% were agricultural workers, 50.6% had a monthly income of 1100 Turkish liras (US$ 508) or less and 27.5% were living in rented houses. The frequency of hypertension observed was found to be significantly higher (p<0.05) in those whose household income was 1100 TL or less (19.2%), those in the professional class of unemployed or without a regular income (19.2%), those who had their own house (18.3%), and those whose toilet was outside (21.0%) than their counterparts. The existence of coronary artery disease was found to be significantly higher (p<0.05) in those with their own house (6.7%) and those whose toilet was outside (8.2%). The frequency of diabetes observed was found to be significantly higher (p<0.05) in those with their own house (8.9%). In addition, the occurrence of cerebrovascular disease (3.5%) was significantly higher in those whose toilet was outside than in those for whom it was inside (p<0.05).

Conclusion: The socioeconomic indicators of health of household income, occupational status and location of the toilet were observed to be significantly related to the existence of chronic diseases. Improvement of socioeconomic indicators of health will be possible by accumulating evidence in this area, planning effective action at national and local level with regard to the problems identified, and following these results through with policies.

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Member Organizations

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Public Health, Community Medicine and Family Medicine
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Lebanon
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Institute of Health & Society, Newcastle University
Institute of Psychology, Health and Society, University of Liverpool
Population Health Research Institute, St. George's, University of London

The consortium of partners is coordinated by the Institute of Health and Society, Newcastle University and is led by RESCAP-MED Scientific Coordinator Professor Peter Phillimore