

2015

Health & Medical Sciences Abstracts

Third Annual International
Conference on Health Sciences
First Annual International
Conference on Public Health
Forum on Health Inequality
Symposium on Diabetes

4-7 May 2015, Athens, Greece

Edited by Gregory T. Papanikos

THE ATHENS INSTITUTE FOR EDUCATION AND RESEARCH



Health & Medical Sciences
Abstracts

3rd Annual International
Conference on
Health Sciences

1st Annual International
Conference on Public Health
Forum on Health Inequality
Symposium on Diabetes

4-7 May 2015, Athens, Greece

Edited by Gregory T. Papanikos

First Published in Athens, Greece by the Athens Institute for Education and Research.

ISBN: 978-618-5065-88-1

All rights reserved. No part of this publication may be reproduced, stored, retrieved system, or transmitted, in any form or by any means, without the written permission of the publisher, nor be otherwise circulated in any form of binding or cover.

8 Valaoritou Street
Kolonaki, 10671 Athens, Greece
www.atiner.gr

©Copyright 2015 by the Athens Institute for Education and Research. The individual essays remain the intellectual properties of the contributors.

TABLE OF CONTENTS

(In Alphabetical Order by Author's Family name)

Preface		11
Conference Program		13
1.	Challenges Faced Vs Success Stories Involved within Planning & Implementing Competency based Training Programme, At Ahmadi Hospital, Kuwait <i>Fatma El Zahraa Abdel Rahman</i>	21
2.	The Validity and Reliability of the Turkish Version of Back Pain and Body Posture Evaluation Instrument (BackPEI) <i>Dercan Akpunar & Hatice Bebis</i>	23
3.	The Analysis of Potassium Bromate in some Bread Improvers Commonly used in Saudi Arabia <i>Okla Al Horayess</i>	24
4.	Maternal and Child Health Inequalities in Ethiopia <i>Alemayehu Ambel, Colin Andrews, Elizabeth Foster & Qaiser Khan</i>	25
5.	A Mind and Body Fitness: Prehabilitation <i>Margo Apostolos</i>	27
6.	The Introduction of Simulation-Based Education during Internal Medicine Clerkship: Students' Perception and Outcome <i>Najwa Al-Mously</i>	28
7.	An Independent Review of the Assistant Practitioner Role <i>Simone Bedford</i>	29
8.	An Examination of the Relationship Between the Provision of Primary Healthcare Education and Training, and the Regulatory Requirements Between Nurses, Doctors and EU Health Outcome Data in Relation to Paediatric Care. A UK and European Union Partners Perspective <i>Carol Chamley & Jason Pritchard</i>	30
9.	Psychical Impacts of Episiotomy on Primiparous Women: First Results of a Longitudinal Study Compared to a Literature Review <i>Christophe Clesse, Joelle Lighezzolo-Alnot & Sylvie De Lavergne</i>	32
10.	Meaningful Lifelong Learning in Nursing Education: Barriers, Facilitators, and Outcomes <i>Sue Coffey, Leslie Graham & Hilde Zitzelsberger</i>	33
11.	Assessing Burden and Quality of Life for Caregivers of Chronically and Terminally Ill Patients - An Evidence Based Systematic Review from a Global Perspective <i>Suranjana Datta, Sujoy Kar & Tamara Ray</i>	35
12.	Synergistic Interaction between Phytochemicals and Oral Antidiabetic Drugs Leading to Enhanced Glucose Uptake in Cells <i>Mukesh Doble & Pranav Kumar Prabhakar</i>	37

13.	The Role of Pets in the Lives of Those Living With Dementia in the Community <i>Carren Dujela & Neena Chappell</i>	38
14.	Psychosocial Rehabilitation Meet the Neo-Evolutionary Psychology: Interests, Impacts and Perspectives on Accompaniment <i>Isabelle Dumand, Christophe Clesse, Michel Decker, Christine Savini & Joelle Lighezzolo-Alnot, When</i>	39
15.	Knowledge Brokers to Establish Healthy Public Policies: An Evaluation Study <i>Richard Dumont</i>	40
16.	Knowledge, Attitudes and Practices of Public Health Midwives in the District of Kalutara on the Revised Maternal Care Package and Issues Faced by them in Implementing the Package <i>Rasika Deepani Edirisinghe & Nilmini Hemachandra</i>	41
17.	Exploring a Liver Module in Learning Ultrasound Anatomy <i>Mohamed Eladl, Akram Jaffar & Abdulmonhem Obaideen</i>	42
18.	Assessment of HIV/AIDS Comprehensive Knowledge among Sudanese University Students 2014 <i>Abdulateef Elbadawi</i>	43
19.	Pregestational Diabetes and Congenital Heart Defects: Role of Reactive Oxygen Species <i>Qingping Feng</i>	44
20.	Factors associated with Utilization of Antenatal Care Services in Balochistan, Pakistan: An Analysis of the Multiple Indicator Cluster Survey (MICS) Balochistan 2010 <i>Abdul Ghaffar, Sathirakorn Pongpanich, Najma Ghaffar & Tahir Mehmood</i>	45
21.	Understanding Homophobia and Transphobia in Context: A Qualitative Study on Health Inequalities of LGBT People in Greece <i>Dimitra Giannou</i>	46
22.	Evaluation of Applied Public Health Emergency System at Prince Mohammed International Airport in Almedinah during Hajj Season 1435: A Qualitative Case Study <i>Ibrahim Gosadi, Abdulaziz Bin Saeed, Ali M. Al-Hazmi, Amin A. Fadl, Khalid H. Alharbi & Mazin M. Swarelzahab</i>	47
23.	Working against Exclusion: Design for All as a Tool for Improving Social Participation <i>Gawron Grzegorz & Paulina Rojek-Adamek</i>	49
24.	Sexually Dimorphic Effects of Genistein in Various Murine Diabetic Models <i>Tai Liang Guo & Wan-I Oliver Li</i>	50
25.	Social Determinants of Health in Babylon, an Informal Settlement at the Outskirts of Windhoek (the Capital City of Namibia) Urban- Slum and Health Inequality <i>Pandu Hailonga-van Dijk</i>	51

26.	The Effect of Green Tea Consumption and Physical Activity on Lipid Profiles and WHR on Sedentary Women <i>Parichehr Hanachi, Hoseini Soreh & Nazarali Parvaneh</i>	53
27.	From Commodity Fiction to Fictitious Health: A Polanyian Discourse Analysis to Health Foods <i>Kan-Lin Hsu</i>	54
28.	Teaching of Psychomotor Skills in Occupational Therapy Students: Student-directed vs Teacher-Directed Learning Jay Jullie, Lecturer, University of Witwatersand, South Africa	55
29.	The Distribution of Influenza Cases in Crowded Area, An Epidemiological Study <i>Nezar H. Khedary</i>	56
30.	MSM's Understandings of their Risk of HIV Infection in a Post-Antiretroviral Society <i>Brian Kavanagh</i>	58
31.	The Survey and Education on the Dietary Life of the Children and their Parents in South Korea <i>Yoo Kim & Myeong Cha</i>	59
32.	Access to Healthcare for Vulnerable Asian American Subgroups in the United States <i>Deborah Kim-Lu</i>	60
33.	Item Generation in the Development of a Harmony of Life Scale: A Qualitative Study <i>Patcharee Komjakraphan</i>	61
34.	Determinants of Inequalities in Health in Europe with Focus on Retirement <i>Jorgen T. Lauridsen & Terkel Christiansen</i>	62
35.	Community Partner Involvement in a Juvenile Justice Behavioral Health Service Organizational Implementation Trial <i>Carl Leukefeld</i>	63
36.	Clinical Genetics Core Competency Assessment in Pediatricians and Pediatric Trainees <i>Chumei Li</i>	64
37.	Prediction of Breast Cancer Survival through Knowledge Discovery in Databases <i>Hadi Lotfnezhad Afshar, Maryam Ahmadi, Masoud Roudbari & Farahnaz Sadoughi</i>	65
38.	Diagnosis and Men-percent of Diabetes and Relationship of d-Glucose to Preservation of Kidney Function <i>Anil Mandal</i>	67
39.	Sibling Sex Composition, Chores, and Occupational Sex Composition <i>Elizabeth McClintock & Emily Fitzgibbons Shafer</i>	68
40.	Effects of a Community-Based Exercise Program on Falls Risk in Patients with Type 2 Diabetes: <i>Diabetes em Movimento</i>[®] Trial <i>Romeu Mendes</i>	69

41.	Availability of Drugs and Medical Supplies for Emergency Obstetric Care: Experience of Health Facility Managers in a Rural District of Tanzania <i>Dickson Mkoka, Isabel Goicolea, Angwara Kiwara, Mughwira Mwangu & Anna-Karin Hurtig</i>	70
42.	The Effect of the Neighbourhood Renewal Policy on Health and Wellbeing in Northern Ireland <i>Gretta Mohan & Alberto Longo</i>	72
43.	Managing Chronic Illness at Work <i>Lise Monneraud</i>	73
44.	Illegitimacy, Identifiable Paternity and Infant Mortality in Eighteenth-Century Wales <i>Angela Muir</i>	74
45.	Evaluation of the Hypoglycaemic, Hypolipidemic and Antioxidant, Properties of a Cameroonian Polyherbal Formulation on Diabetic Rats <i>Jeanne Ngogang, Bruno Mukette, Anatole Constant Pieme, Proper Cabral Biapa, Vicky Jocelyne Ama Moor, Pauline Nanfack & Marcel Azabji</i>	75
46.	Women's University, India. Impact of Specific Processing of Rice on Postprandial Glycemic and Insulinemic Responses in Individuals with Type 2 Diabetes Mellitus <i>Neha Paharia & Kasturi Sen Ray</i>	77
47.	Prevalence of Helicobacter Pylori in a Portuguese Sample of Adolescents <i>Carlos Pereira, Nelio Veiga, Odete Amaral, Joana Pereira & Ilda Bastos</i>	78
48.	Peer Support for Mothers with Postnatal Depression <i>Fiona Phipps</i>	80
49.	National Program of Health Services Evaluation: Methodological Innovations and Challenges in Brazil <i>Anyra Pimentel Gomes Fernandes Vieira Meyer, Themis Xavier de Albuquerque Pinheiro & Paulo de Medeiros Rocha</i>	82
50.	Organelles Stress and Their Crosstalk within Diabetic Myocardium <i>Doina Popov</i>	84
51.	Values Based Simulation <i>Louise Price</i>	85
52.	Redressing Health Inequality: The Impact of our Research Findings on Promoting Health and Wellbeing <i>Fatemeh Rabiee</i>	86
53.	Preventing Pain and its Hemodynamics Consequences through Hypnosis: Hypnotic Focused Analgesia vs. Hypnotic General Anesthesia <i>Panagiota Rempelou, V. Tikhonoff, M. Giacomello, F. Guidotti, A. M. Lapenta, A. M. Rossi, G. Regaldo, S. Crociani, G. Boschetti, N. Giordano, E. Facco, P. Palatini & E. Casiglia</i>	88

54.	Importance of Latent Tuberculosis Infection among Legal Immigrants in Sabah <i>Maini Sabait, Mohamed Rusli Abdullah, Mohd Zahiruddin Wan Mohammadd & Julia Omar</i>	90
55.	Gender Differences in Satisfaction with Primary Health Care Centers in Riyadh City, Kingdom of Saudi Arabia <i>Abdalla Saeed Ali</i>	91
56.	Relative Glycemic and Insulinemic Response of Staple Indian Foods in Type 2 Diabetic Patients <i>Kasturi Sen Ray & Neha Pahlaria</i>	92
57.	Topiramate, by Inhibiting Mitochondrial Carbonic Anhydrase VA, Protects High Glucose-Induced Brain Pericyte Apoptosis: Implications for Cerebral Microvascular Disease in Diabetes <i>Gul Shah</i>	93
58.	Anthropometric Indices among Apparently Healthy Adolescents with Family History of Hypertension <i>Pragya Sharma, Paras Agarwal, Tarang Preet Kaur & Gopal Krishna Ingle</i>	94
59.	New 1, 4-Dihydropyridines Down-Regulate Nitric Oxide in Animals with Experimental Diabetes Mellitus and Protect DNA against Peroxynitrite Action <i>Nikolajs S. Sjakste, Jelizaveta Sokolovska & Evita Rostoka</i>	96
60.	Water Soluble 1, 4-Dihydropyridines Modify PARP1, eNOS and iNOS gene Expression in Healthy Animals and in Streptozotocin-Induced Model of <i>Diabetes Mellitus</i> <i>Tatjana Sjakste, Kristine Osina & Evita Rostoka</i>	98
61.	Cruel Poverty: An Examination of Health Disparities in Honduras <i>Irving H. Smith</i>	100
62.	Serum Levels of HSP70 and TNF-A and Their Interaction Effects on Metabolic Syndrome in a Chinese Moslem and Han Population <i>Hui Song</i>	101
63.	Pleasure and Public Policies for Drug Prevention <i>Milena Spach</i>	103
64.	Using Student-Generated Images to Promote Learning in an HIV/AIDS Education Program for Youth <i>Teresa Stallings</i>	104
65.	Convergence of Health Status in the European Union: a Spatial Econometric Approach <i>Renata Stanczyk</i>	105
66.	The Australian National University, Australia. An Integrated Approach to the Prevention of Neglected Tropical Diseases (NTDs): The Way Forward? <i>Donald Stewart, Budi Laksono, MJ Park & Dongxu Wang</i>	106

67.	Tracking Changes in Child Welfare: Using Quality Assurance to Monitor Child Welfare Outcomes <i>Suzanne Sutphin</i>	108
68.	Pharmacological Treatment for Nocturnal Muscle Cramps <i>Mayumi Tanaka & Takuro Matsumura</i>	109
69.	Surveillance, Control, and Prevention Systems of Hypertension in Singburi, Thailand: Policy to Action <i>Vichai Tienthavorn & Numfon Eaktasang</i>	110
70.	Cost Efficacy in Type 2 Diabetes Mellitus Patients with and without Complication: A Population Based Socioeconomic Study in Eastern India <i>Kamlakar Tripathi & Richik Tripathi</i>	111
71.	CYR61 as a Factor Involved in the Pathogenesis of Impaired Wound Healing in Type 2 Diabetes Mellitus <i>Richik Tripathi & Deepa Pokharia</i>	112
72.	'Playing it Right?' Acceptable Professional Femininities in Greek Academic Medicine <i>Maria Tsouroufli</i>	113
73.	The Influence of Individual and Environmental Factors upon Resuscitation and Survival of Cardiac Arrest Patients <i>Oana Tudorache, Valentin Georgescu & Sebastian Mihai Armean</i>	114
74.	Contribution of Immigration Neighbourhood Attributes to Health Inequalities Assessment <i>Alain Vanasse</i>	116
75.	Socioeconomic Differentials in Lung Cancer Mortality in Belgian Men and Women (2004-2005): Does it Matter who you live with? <i>Katrien Vanthomme, Hadewijch Vandenheede, Paulien Hagedoorn & Sylvie Gadeyne</i>	117
76.	Gender Disparity in Seeking Emergency New Born Care Services in Rajasthan, India <i>Beena Varghese</i>	119
77.	The Prevalence of Children Overweight and Obesity and Their Effects on Blood Pressure in Yinchuan Children <i>Hai-Ping Zhao</i>	120

Preface

This abstract book includes all the summaries of the papers presented at the 3rd *Annual International Conference on Health Sciences, the 1st Annual International Conference on Public Health, the Forum on Health Inequality and the Symposium on Diabetes 4-7 May 2015*, organized by the Health Research Unit of the Athens Institute for Education and Research. In total there were 77 papers, coming from 32 different countries (Australia, Belgium, Brazil, Cameroon, Canada, China, Denmark, France, India, Iran, Italy, Japan, Kuwait, Latvia, Malaysia, Namibia, Poland, Portugal, Romania, Saudi Arabia, South Africa, South Korea, Sri Lanka, Sudan, Taiwan, Tanzania, Thailand, The Netherlands, Turkey, UAE, UK and USA). The conferences were organized into eighteen sessions that included areas of Public Health, Nutrition & Medicine, Internal Medicine, Diabetes, Health Inequality and other related fields. As it is the publication policy of the Institute, the papers presented in this conference will be considered for publication in one of the books and/or journal of ATINER.

The Institute was established in 1995 as an independent academic organization with the mission to become a forum where academics and researchers from all over the world could meet in Athens and exchange ideas on their research and consider the future developments of their fields of study. Our mission is to make ATHENS a place where academics and researchers from all over the world meet to discuss the developments of their discipline and present their work. To serve this purpose, conferences are organized along the lines of well established and well defined scientific disciplines. In addition, interdisciplinary conferences are also organized because they serve the mission statement of the Institute. Since 1995, ATINER has organized more than 150 international conferences and has published over 100 books. Academically, the Institute is organized into four research divisions and nineteen research units. Each research unit organizes at least one annual conference and undertakes various small and large research projects.

I would like to thank all the participants, the members of the organizing and academic committee and most importantly the administration staff of ATINER for putting this conference together.

Gregory T. Papanikos
President

FINAL CONFERENCE PROGRAM
3rd Annual International Conference on Health Sciences
1st Annual International Conference on Public Health
Forum on Health Inequality
Symposium on Diabetes

PROGRAM

Conference Venue: Titania Hotel, 52 Panepistimiou Avenue, Athens, Greece

Organization and Scientific Committee

1. Dr. Gregory T. Papanikos, President, ATINER & Honorary Professor, University of Stirling, UK.
2. Dr. George Poulos, Vice-President of Research, ATINER & Emeritus Professor, University of South Africa, South Africa.
3. Dr. Zoe Boutsoli, Director, Health Sciences Research Division, ATINER.
4. Dr. Anil Mandal, Academic Member, ATINER & Courtesy Clinical Professor, Department of Medicine, University of Florida, USA.
5. Dr. Gregory A. Katsas, Head, Sociology Research Unit & Associate Professor, The American College of Greece-Deree College, Greece.
6. Dr. Sue Coffey, Academic Member, ATINER & Associate Professor and Director of the Nursing Program, University of Ontario Institute of Technology, Canada
7. Dr. Anna Tsaroucha, Academic Member, ATINER & Senior Research Officer Fellow of the Higher Education Academy (FHEA), School of Social Work, Allied and Public Health, Faculty of Health Sciences, Staffordshire University, U.K.
8. Dr. Fatemeh Rabiee, Professor in Public Health Promotion, Centre for Health & Social Care Research Faculty of Health, Birmingham City University (BCU), U.K.
9. Dr. Panagiotis Petratos, Vice President of ICT, ATINER, Fellow, Institution of Engineering and Technology & Professor, Department of Computer Information Systems, California State University, Stanislaus, USA.
10. Dr. Paul Contoyannis, Head, Health Research Unit, ATINER & Associate Professor, McMaster University, Canada.
11. Ms. Olga Gkounta, Researcher, ATINER.

Administration

Stavroula Kyritsi, Konstantinos Manolidis, Katerina Maraki & Kostas Spiropoulos

Monday 4 May 2015

07:45-08:40 Registration and Refreshments

08:40-09:05 (ROOM B-MEZZANINE FLOOR) Welcome & Opening Remarks

- Dr. Gregory T. Papanikos, President, ATINER
- Dr. George Poulos, Vice-President of Research, ATINER & Emeritus Professor, University of South Africa, South Africa.
- Gregory A. Katsas, Head, Sociology Research Unit & Associate Professor, The American College of Greece-Deree College, Greece.
- Dr. Zoe Boutslioli, Director, Health Sciences Research Division, ATINER.

09:05-09:15 Break

<p>09:15-10:50 Session I (ROOM D-1st FLOOR): Program-Based Solutions in Public Health Care Issues</p> <p>Chair: George Poulos, Vice-President of Research, ATINER & Emeritus Professor, University of South Africa, South Africa.</p> <ol style="list-style-type: none"> 1. Romeu Mendes, Professor, ACES Douro I - Marão e Douro Norte, Public Health Unit, University of Tras-os-Montes e Alto Douro, CIDESD, Portugal. Effects of a Community-Based Exercise Program on Falls Risk in Patients with Type 2 Diabetes: <i>Diabetes em Movimento</i>[®] Trial. 2. *Pragya Sharma, Associate Professor, Maulana Azad Medical College, India, Paras Agarwal, Clinical Research Coordinator, Translational Health Science and Technology Institute, Ministry of Science and Technology, India, Tarang Preet Kaur, Undergraduate Student, Maulana Azad Medical College, India & Gopal Krishna Ingle, Director, Professor, Maulana Azad Medical College, India . Anthropometric Indices among Apparently Healthy Adolescents with Family History of Hypertension. 3. *Patcharee Komjakraphan, Assistant Professor, Prince of Songkla University, Thailand. Item Generation in the Development of a Harmony of Life Scale: A Qualitative Study. 4. Dercan Akpunar, Ph.D. Student, Gulhane Military Medical Academy, Turkey & Hatice Bebis, Associate Professor, Gulhane Military Medical Academy, Turkey. The Validity and Reliability of the Turkish Version of Back Pain and Body Posture Evaluation Instrument (BackPEI). 	<p>09:15-10:50 Session II (ROOM B-MEZZANINE FLOOR-Mezzanine Floor): Health Inequality I*</p> <p>Chair: *Elizabeth McClintock, Assistant Professor, University of Notre Dame, USA</p> <ol style="list-style-type: none"> 1. Alain Vanasse, Professor, Université de Sherbrooke, Canada. Contribution of Immigration Neighbourhood Attributes to Health Inequalities Assessment. (Health Inequality) 2. *Alemayehu Ambel, Economist, World Bank, USA, Colin Andrews, Sr. Social Protection Specialist, World Bank, Ethiopia, Elizabeth Foster, Consultant, World Bank, Ghana & Qaiser Khan, Program Leader, World Bank, Ethiopia. Maternal and Child Health Inequalities in Ethiopia. (Health Inequality) 3. *Carol Chamley, Senior Lecturer, Coventry University, U.K. & Jason Pritchard, Senior Lecturer, Coventry University, U.K. An Examination of the Relationship Between the Provision of Primary Healthcare Education and Training, and the Regulatory Requirements Between Nurses, Doctors and EU Health Outcome Data in Relation to Paediatric Care. A UK and European Union Partners Perspective. 4. Katrien Vanthomme, Ph.D. Student, Free University of Brussels, Belgium, Hadewijch Vandenheede, Professor, Paulien Hagedoorn, Ph.D. Student & Sylvie Gadeyne, Professor, Free University of Brussels, Belgium. Socioeconomic Differentials in Lung Cancer Mortality in Belgian Men and Women (2004-2005): Does it Matter who you live with? 5. Deborah Kim-Lu, Ph.D. Graduate, City University of New York Graduate Center, USA. Access to Healthcare for Vulnerable Asian American Subgroups in the United States. (Health Inequality)
<p><i>*Jointly organized with the Sociology Research Unit of ATINER</i></p>	

10:50-11:00 Break

<p>11:00-12:20 Session III (ROOM D - 1st FLOOR): Evaluation in Health and Medicine</p>	<p>11:00-12:20 Session IV (ROOM B-MEZZANINE FLOOR): Health & Illness I*</p>
<p>Chair: *Pragya Sharma, Associate Professor, Maulana Azad Medical College, India</p>	<p>Chair: Carol Chamley, Senior Lecturer, Coventry University, U.K.</p>
<ol style="list-style-type: none"> 1. <u>Ibrahim Gosadi</u>, Assistant Professor, King Saud University, Saudi Arabia, Abdulaziz Bin Saeed, Ali M. Al-Hazmi, Amin A. Fadl, Khalid H. Alharbi, King Saud University, Saudi Arabia & Mazin M. Swarelzahab, Ministry of Health, Saudi Arabia. Evaluation of Applied Public Health Emergency System at Prince Mohammed International Airport in Almedinah during Hajj Season 1435: A Qualitative Case Study. 2. *Simone Bedford, Senior Lecturer, Swansea University, U.K. An Independent Review of the Assistant Practitioner Role. (Monday, 4th of May 2015) 3. <u>Anya Pimentel Gomes Fernandes Vieira Meyer</u>, Researcher, Fundacao Oswaldo Cruz – FIOCRUZ, Brazil, <u>Themis Xavier de Albuquerque Pinheiro</u>, Professor, Federal University of Rio Grande do Norte, Brazil & <u>Paulo de Medeiros Rocha</u>, Professor, Federal University of Rio Grande do Norte, Brazil. National Program of Health Services Evaluation: Methodological Innovations and Challenges in Brazil. (Monday, 4th of May 2015) 	<ol style="list-style-type: none"> 1. Carl Leukefeld, Professor, University of Kentucky, USA. Community Partner Involvement in a Juvenile Justice Behavioral Health Service Organizational Implementation Trial. 2. *Teresa Stallings, Associate Professor, Northern State University, USA. Using Student-Generated Images to Promote Learning in an HIV/AIDS Education Program for Youth. 3. Angela Muir, Ph.D. Candidate, University of Exeter, U.K. Illegitimacy, Identifiable Paternity and Infant Mortality in Eighteenth-Century Wales. 4. Margo Apostolos, Associate Professor, University of Southern California, USA. Mind and Body Fitness: Prehabilitation. 5. Louise Price, Senior Lecturer, Coventry University, U.K. Values Based Simulation.
<p><i>*Jointly organized with the Sociology Research Unit of ATINER</i></p>	

12:20-12:30 Break

<p>12:30-14:00 Session V (ROOM D-1st FLOOR): Challenges and Concerns in Nutrition and Medicine</p>	<p>12:30-14:00 Session VI (ROOM B-MEZZANINE FLOOR): Inequality & Social Services*</p>
<p>Chair: *Simone Bedford, Senior Lecturer, Swansea University, U.K.</p>	<p>Chair: *Alemayehu Ambel, Economist, World Bank, USA</p>
<ol style="list-style-type: none"> 1. Carlos Pereira, Professor, Polytechnic Institute of Viseu, Portugal, Nelio Veiga, Ph.D. Student, Polytechnic Institute of Viseu, Portugal, Odete Amaral, Professor, Polytechnic Institute of Viseu, Portugal, <u>Joana Pereira</u>, Polytechnic Institute of Viseu, Portugal & Ilda Bastos, Polytechnic Institute of Viseu, Portugal. Prevalence of Helicobacter Pylori in a Portuguese Sample of Adolescents. 2. <u>Yoo Kim</u>, Professor, Kyungpook National University, South Korea & Myeong Cha, Researcher, Kyungpook National University, South Korea. The Survey and Education on the Dietary Life of the Children and their Parents in South Korea. (morning session) 3. *Gul Shah, Professor, Saint Louis University, USA. Topiramate, by Inhibiting Mitochondrial Carbonic Anhydrase VA, Protects High Glucose-Induced Brain Pericyte Apoptosis: Implications for Cerebral Microvascular Disease in Diabetes. 	<ol style="list-style-type: none"> 1. *<u>Elizabeth McClintock</u>, Assistant Professor, University of Notre Dame, USA & Emily Fitzgibbons Shafer, Portland State University, USA. Sibling Sex Composition, Chores, and Occupational Sex Composition. 2. Suzanne Sutphin, Research Assistant Professor, University of South Carolina, USA. Tracking Changes in Child Welfare: Using Quality Assurance to Monitor Child Welfare Outcomes. 3. <u>Gawron Grzegorz</u>, Assistant Professor, University of Silesia in Katowice, Poland & Paulina Rojek-Adamek, Assistant Professor, Andrzej Frycz Modrzewski Krakow University, Poland. Working against Exclusion: Design for All as a Tool for Improving Social Participation.

<p>4. *Okla Al Horayess, Associate Professor, KACST, Saudi Arabia. The Analysis of Potassium Bromate in some Bread Improvers Commonly used in Saudi Arabia.</p> <p>5. *<u>Parichehr Hanachi</u>, Associate Professor, Alzakra University, Iran, Hoseini Soreh & Nazarali Parvaneh, Alzakra University, Iran. The Effect of Green Tea Consumption and Physical Activity on Lipid Profiles and WHR on Sedentary Women. (Monday, 4th of May 2015)</p>	
*Jointly organized with the Sociology Research Unit of ATINER	

14:00-15:00 Lunch

<p>15:00-16:20 Session VII (ROOM D-1st FLOOR): Contemporary Social Issues in Health</p> <p>Chair: *Gul Shah, Professor, Saint Louis University, USA.</p>	<p>15:00-16:20 Session VIII (ROOM B-MEZZANINE FLOOR): Health Inequality II*</p> <p>Chair: Fatemeh Rabiee, Professor in Public Health Promotion, Centre for Health & Social Care Research Faculty of Health, Birmingham City University (BCU), U.K.</p>
<p>1. Lise Monneraud, Post-Doctoral Researcher, University of Bordeaux, France. Managing Chronic Illness at Work.</p> <p>2. Nezar H. Khadry, Consultant, KACST, Saudi Arabia. The Distribution of Influenza Cases in Crowded Area, An Epidemiological Study.</p> <p>3. <u>Maini Sabait</u>, Ph.D. Candidate, Universiti Sains Malaysia, Malaysia, Mohamed Rusli Abdullah, Professor, Universiti Sains Malaysia, Malaysia, Mohd Zahiruddin Wan Mohammadd, Associate Professor, Universiti Sains Malaysia, Malaysia & Julia Omar, Head, Universiti Sains Malaysia, Malaysia. Importance of Latent Tuberculosis Infection among Legal Immigrants in Sabah.</p> <p>4. Milena Spach, Ph.D. Student, University Paris 1, France. Pleasure and Public Policies for Drug Prevention.</p>	<p>1. Abdalla Saeed Ali, Consultant, Faculty Member, King Fahad Medical City, Saudi Arabia. Gender Differences in Satisfaction with Primary Health Care Centers in Riyadh City, Kingdom of Saudi Arabia.</p> <p>2. Richard Dumont, Advisor Health, Province of Noord-Brabant, 's-Hertogenbosch, The Netherlands. Knowledge Brokers to Establish Healthy Public Policies: An Evaluation Study.</p> <p>3. <u>Rasika Deepani Edirisinghe</u>, Medical Officer, Base Hospital, Horana, Sri Lanka & Nilmini Hemachandra, Manager-Maternal Care, Family Health Bureau, Ministry of Health, Sri Lanka. Knowledge, Attitudes and Practices of Public Health Midwives in the District of Kalutara on the Revised Maternal Care Package and Issues Faced by them in Implementing the Package.</p>
*Jointly organized with the Sociology Research Unit of ATINER	

16:20-16:30 Break

<p>16:30-18:00 Session IX (ROOM D-1st FLOOR): Internal Medicine - Diabetes and Other Essays</p> <p>Chair: *Okla Al Horayess, Associate Professor, KACST, Saudi Arabia.</p>	<p>16:30-18:00 Session X (ROOM B-MEZZANINE FLOOR): Health Inequality III*</p> <p>Chair: Michael Douglas, Director of Education, University Centre for Rural Health, University of Sydney, Australia.</p>
<p>1. Panagiota Rempelou, Specialist of Internal Medicine, University of Padua, Italy, V. Tikhonoff, M. Giacomello, F. Guidotti, A. M. Lapenta, A. M. Rossi, G. Regaldo, S. Crociani, G. Boschetti, N. Giordano, E. Facco, P. Palatini & E. Casiglia. Preventing Pain and its Hemodynamics Consequences through Hypnosis: Hypnotic Focused Analgesia vs. Hypnotic General Anesthesia. (INM)</p> <p>2. Nikolajs S. Sjakste, Leading Researcher, Latvian Institute of Organic Synthesis, Latvia, Jelizaveta Sokolovska, Researcher, Latvian Institute of Organic Synthesis, Latvia & Evita Rostoka, Reasearcher, Latvian Institute of Organic Synthesis, Latvia. New 1, 4-Dihydropyridines Down-Regulate Nitric Oxide in Animals with Experimental Diabetes Mellitus and Protect DNA against Peroxynitrite Action. (DIA)</p>	<p>1. *Irving H. Smith, Assistant Professor, Coppin State University, USA. Cruel Poverty: An Examination of Health Disparities in Honduras.</p> <p>2. Abdulateef Elbadawi Assistant Professor Faculty of Medicine, University of Tabuk, Sudan. Assessment of HIV/AIDS Comprehensive Knowledge among Sudanese University Students 2014.</p> <p>3. *<u>Vichai Tienthavorn</u>, Vice President and Dean, School of Medicine, University of Phayao, Thailand & Numfon Eaktasang, University of Phayao, Thailand. Surveillance, Control, and Prevention Systems of Hypertension in Singburi, Thailand: Policy to Action.</p>

3. Tatjana Sjakste, Leading Researcher, University of Latvia, Latvia, Kristine Osina, Researcher, University of Latvia, Latvia & Evita Rostoka, Reasearcher, Latvian Institute of Organic Synthesis, Latvia. Water Soluble 1, 4-Dihydropyridines Modify PARP1, eNOS and iNOS gene Expression in Healthy Animals and in Streptozotocin-Induced Model of Diabetes Mellitus.(DIA)

**Jointly organized with the Sociology Research Unit of ATINER*

18:00-18:15 Break

18:15-20:30 Session XI (ROOM E-10th Floor): An International Symposium on Diabetes

Chair: Anil Mandal, Academic Member, ATINER & Courtesy Clinical Professor, Department of Medicine, University of Florida, USA.

1. *Mukesh Doble, Professor, IIT Madras, India & Pranav Kumar Prabhakar, Assistant Professor, Lovely Professional University, India. Synergistic Interaction between Phytochemicals and Oral Antidiabetic Drugs Leading to Enhanced Glucose Uptake in Cells. (DIA)
2. *Jeanne Ngogang, Professor, University of Yaounde I, Cameroon, Bruno Mukette, Ph.D. Student, University of Yaounde I, Cameroon, Anatole Constant Pieme, Lecturer, University of Yaounde I, Cameroon, Proper Cabral Biapa, Lecturer, University of Yaounde I, Cameroon, Vicky Jocelyne Ama Moor, Lecturer, University of Yaounde I, Cameroon, Pauline Nanfack, Ph.D. Student, University of Yaounde I, Cameroon & Marcel Azabji, Lecturer, University of Yaounde I, Cameroon. Evaluation of the Hypoglycaemic, Hypolipidemic and Antioxidant, Properties of a Cameroonian Polyherbal Formulation on Diabetic Rats. (DIA)
3. *Tai Liang Guo, Associate Professor, University of Georgia, USA & Wan-I Oliver Li, Associate Professor, University of Georgia, USA. Sexually Dimorphic Effects of Genistein in Various Murine Diabetic Models. (DIA)
4. *Kasturi Sen Ray, Retired Professor, SNTD Women's University, India & Neha Paharia, Ph.D. Graduate, SNTD Women's University, India. Relative Glycemic and Insulinemic Response of Staple Indian Foods in Type 2 Diabetic Patients. (DIA)
5. *Doina Popov, Head of Pathophysiology and Pharmacology Department, Institute of Cellular Biology and Pathology "N. Simionescu" of the Romanian Academy, Romania. Organelles Stress and Their Crosstalk within Diabetic Myocardium. (DIA)
6. Richik Tripathi, Professor, Banaras Hindu University, India & Deepa Pokharia, Research Scholar, Banaras Hindu University, India. CYR61 as a Factor Involved in the Pathogenesis of Impaired Wound Healing in Type 2 Diabetes Mellitus. (DIA)
7. Neha Paharia, Ph.D. Graduate, SNTD Women's University, India & Kasturi Sen Ray, Retired Professor, SNTD Women's University, India. Impact of Specific Processing of Rice on Postprandial Glycemic and Insulinemic Responses in Individuals with Type 2 Diabetes Mellitus. (DIA)
8. Anil Mandal, Courtesy Clinical Professor, Department of Medicine, University of Florida, USA. Diagnosis and Men-percent of Diabetes and Relationship of d-Glucose to Preservation of Kidney Function.

21:00-23:00 Greek Night and Dinner (Details during registration)

Tuesday 5 May 2015

08:00-09:50 Session XII (ROOM D - 1ST FLOOR): Education Training and Life - Long Learning Issues in Health and Medicine

Chair: *Tai Liang Guo, Associate Professor, University of Georgia, USA

1. Sue Coffey, Associate Professor, University of Ontario Institute of Technology, Canada, Leslie Graham, Professor, University of Ontario Institute of Technology, Canada & Hilde Zitzelsberger, Assistant Professor, University of Ontario Institute of Technology, Canada. Meaningful Lifelong Learning in Nursing Education: Barriers, Facilitators, and Outcomes.
2. Najwa Al-Mously, Assistant Professor, King Saud bin Abdulaziz University, Saudi Arabia. The Introduction of Simulation-Based Education during Internal Medicine Clerkship: Students' Perception and Outcome.
3. *Mohamed Eladl, Assistant Professor, University of Sharjah, UAE, Akram Jaffar, Assistant Professor, University of Sharjah, UAE & Abdulmonhem Obaideen, Consultant Radiology, University of Sharjah, UAE. Exploring a Liver Module in Learning Ultrasound Anatomy.
4. *Chumei Li, Director, Clinical Genetics Program, McMaster University Medical Center, Canada. Clinical Genetics Core Competency Assessment in Pediatricians and Pediatric Trainees.
5. Fatma El Zahraa Abdel Rahman, Chief Admin Officer, Kuwait Oil Company, Ahmadi Hospital, Kuwait. Challenges Faced Vs Success Stories Involved within Planning & Implementing Competency based Training Programme, At Ahmadi Hospital, Kuwait.

09:50-10:00 Break

10:00-11:20 Session XIII (ROOM D - 1st FLOOR): Psychological and Physical Activity Issues in Health

Chair: *Irving H. Smith, Assistant Professor, Coppin State University, USA.

1. Fiona Phipps, Senior Lecturer, Staffordshire University, U.K. Peer Support for Mothers with Postnatal Depression. (Tuesday, 5th of May 2015)
2. Christophe Clesse, Ph.D. Student, University of Lorraine, France, Joelle Lighezzolo-Alnot, Professor, University of Lorraine, France & Sylvie De Lavergne, Clinical Psychologist, Majorelle Clinic Nancy, France. Psychical Impacts of Episiotomy on Primiparous Women: First Results of a Longitudinal Study Compared to a Literature Review.
3. Isabelle Dumand, Psychologist, Specialised Hospital Center of Jury-les-Metz, France, Christophe Clesse, Lecturer, University of Lorraine, France, Michel Decker, Psychiatrist, Specialised Hospital Center of Jury-les-Metz, France, Christine Savini, Nurse Manager, Specialised Hospital Center of Jury-les-Metz, France & Joelle Lighezzolo-Alnot, Professor, University of Lorraine, France. When Psychosocial Rehabilitation Meet the Neo-Evolutionary Psychology: Interests, Impacts and Perspectives on Accompaniment.

10:00-11:20 Session XIV (ROOM B-MEZZANINE FLOOR): Health & Illness II*

Chair: Vichai Tienthavorn, Vice President and Dean, School of Medicine, University of Phayao, Thailand.

1. Kan-Lin Hsu, Assistant Professor, Tunghai University, Taiwan. From Commodity Fiction to Fictitious Health: A Polanyian Discourse Analysis to Health Foods.
2. Maria Tsouroufli, Senior Research Fellow, London Metropolitan University, U.K. 'Playing it Right?' Acceptable Professional Femininities in Greek Academic Medicine.
3. Carren Dujela, Project Coordinator, University of Victoria, Canada & Neena Chappell, Professor, University of Victoria, Canada. The Role of Pets in the Lives of Those Living With Dementia in the Community.
4. Brian Kavanagh, Ph.D. Candidate, Open University, U.K. MSM's Understandings of their Risk of HIV Infection in a Post-Antiretroviral Society.

*Jointly organized with the Sociology Research Unit of ATINER

11:20-11:30 Break

3rd Annual International Conference on Health Sciences,
1st Annual International Conference on Public Health, Forum on Health Inequality,
Symposium on Diabetes, 4-7 May 2015, Athens, Greece: Abstract Book

11:30-12:50 Session XV (ROOM D - 1ST FLOOR): Diabetes and Other Essays	11:30-12:50 Session XVI (ROOM B-MEZZANINE FLOOR): Health Inequality IV*
Chair: *Mohamed Eladl, Assistant Professor, University of Sharjah, UAE.	Chair: Maria Tsouroufli, Senior Research Fellow, London Metropolitan University, U.K.
<ol style="list-style-type: none"> *Kamlakar Tripathi, Professor, Banaras Hindu University, India & Richik Tripathi, Professor, Banaras Hindu University, India. Cost Efficacy in Type 2 Diabetes Mellitus Patients with and without Complication: A Population Based Socioeconomic Study in Eastern India. (DIA) Mayumi Tanaka, Director, Medical Institute Kitano Hospital, Japan & Takuro Matsumura, Staff Doctor, Medical Institute Kitano Hospital, Japan. Pharmacological Treatment for Nocturnal Muscle Cramps. (INM) Qingping Feng, Professor, Western University, Canada. Pregestational Diabetes and Congenital Heart Defects: Role of Reactive Oxygen Species. (DIA) 	<ol style="list-style-type: none"> <u>Donald Stewart</u>, Professor, Griffith University, Australia, Budi Laksono, Director, Wahana Bakti Sejahtera Foundation, Indonesia, MJ Park, Research Fellow, Griffith University, Australia & Dongxu Wang, Research Fellow, The Australian National University, Australia. An Integrated Approach to the Prevention of Neglected Tropical Diseases (NTDs): The Way Forward? Fatemeh Rabiee, Professor, Birmingham City University, U.K. Redressing Health Inequality: The Impact of our Research Findings on Promoting Health and Wellbeing. (Health Inequality) <u>Oana Tudorache</u>, Resident Doctor, "Carol Davila" University of Medicine and Pharmacy, Romania, Valentin Georgescu, Senior Doctor, "Carol Davila" University of Medicine and Pharmacy, Romania & Sebastian Mihai Armean, Assistant Lecturer, "Iuliu Hateganu" University of Medicine and Pharmacy, Romania. The Influence of Individual and Environmental Factors upon Resuscitation and Survival of Cardiac Arrest Patients. Dimitra Giannou, Ph.D. Student, Durham University, U.K. Understanding Homophobia and Transphobia in Context: A Qualitative Study on Health Inequalities of LGBT people in Greece. (Health Inequality) <u>Suranjana Datta</u>, Assistant Manager, Apollo Gleneagles Hospitals, India, Sujoy Kar, General Manager, Apollo Gleneagles Hospitals, India & Tamara Ray, Executive, Apollo Gleneagles Hospitals, India. Assessing Burden and Quality of Life for Caregivers of Chronically and Terminally Ill Patients – An Evidence Based Systematic Review from a Global Perspective.
<i>*Jointly organized with the Sociology Research Unit of ATINER</i>	

12:50-13:00 Break

13:00-14:20 Session XVII (ROOM D - 1st FLOOR): Special Issues in Public Health	13:00-14:20 Session XVIII (ROOM B-MEZZANINE FLOOR): Health Inequality V*
Chair: *Chumei Li, Director, Clinical Genetics Program, McMaster University Medical Center, Canada.	Chair: *Teresa Stallings, Associate Professor, Northern State University, USA
<ol style="list-style-type: none"> Jay Jullie, Lecturer, University of Witwatersand, South Africa. Teaching of Psychomotor Skills in Occupational Therapy Students: Student-directed vs Teacher-Directed Learning. Hui Song, Professor, Ningxia Medical University, China. Serum Levels of HSP70 and TNF-A and Their Interaction Effects on Metabolic Syndrome in a Chinese Moslem and Han Population. Hai-Ping Zhao, Professor, Ningxia Medical University, China. The Prevalence of Children Overweight and Obesity and Their Effects on Blood Pressure in Yinchuan Children. *Beena Varghese, Senior Health Economist, Public Health Foundation of India, India. Gender Disparity in Seeking Emergency New Born Care Services in Rajasthan, India. 	<ol style="list-style-type: none"> Pandu Hailonga-van Dijk, Director, Namibia Global Fund Programme Management Unit, Namibia. Social Determinants of Health in Babylon, an Informal Settlement at the Outskirts of Windhoek (the Capital City of Namibia) Urban- Slum and Health Inequality. <u>Dickson Mkoka</u>, Assistant Lecturer and Ph.D. Student, Muhimbili University of Health and Allied Sciences, Tanzania, Isabel Goicolea, Researcher, Umea University, Sweden, Angwara Kiwara, Professor, Muhimbili University of Health and Allied Sciences, Tanzania, Mughwira Mwangu, Senior Lecturer, Muhimbili University of Health and Allied Sciences, Tanzania & Anna-Karin Hurtig, Associate, Umea University, Sweden. Availability of Drugs and Medical Supplies for Emergency Obstetric Care: Experience of Health Facility Managers in a Rural District of Tanzania. *Jorgen T. Lauridsen, Professor, University of Southern Denmark, Denmark & Terkel Christiansen, Professor, University of Southern Denmark, Denmark. Determinants of Inequalities in Health in Europe with Focus on Retirement. (Health Inequality) Gretta Mohan, Ph.D. Student, Queen's University Belfast, U.K. & Alberto Longo, Queen's University Belfast, U.K. The Effect of the Neighbourhood Renewal Policy on Health and Wellbeing in Northern Ireland. (Health Inequality)

	<p>5. *<u>Abdul Ghaffar</u>, Planning Officer, Health Department, Government of Balochistan, Pakistan, Sathirakom Pongpanich, Associate Professor/Deputy Dean, Chulalongkorn University, Thailand, Najma Ghaffar, Associate Professor, Bolan Medical Complex Hospital, Pakistan & Tahir Mehmood, Assistant Professor, Rafah University, Pakistan. Factors associated with Utilization of Antenatal Care Services in Balochistan, Pakistan: An Analysis of the Multiple Indicator Cluster Survey (MICS) Balochistan 2010.</p> <p>6. Renata Stanczyk, Ph.D. Student, University of Lodz, Poland. Convergence of Health Status in the European Union: a Spatial Econometric Approach. (Health Inequality)</p>
<p><i>*Jointly organized with the Sociology Research Unit of ATINER</i></p>	

14:20-15:20 Lunch

15:30-17:00 Urban Walk (Details during registration)

21:00- 22:30 Dinner (Details during registration)

Wednesday 6 May 2015
Cruise: (Details during registration)

Thursday 7 May 2015
Delphi Visit: (Details during registration)

Fatma El Zahraa Abdel Rahman

Chief Admin Officer, Kuwait Oil Company, Ahmadi Hospital, Kuwait

Challenges Faced Vs Success Stories Involved within Planning & Implementing Competency based Training Programme, At Ahmadi Hospital, Kuwait

Background: Competency-Based training is a framework for designing & implementing education that focuses on the desired performance characteristics of healthcare professionals. Professional competence is the habitual & judicious use of communication, knowledge, technical skills, clinical reasoning, emotions, values, & reflection in daily practice for the benefit of the individual & community being served. The healthcare worker is one of the most important factors in the healthcare system. Healthcare providers are instrumental in stimulating, creating & maintaining healthcare improvement.

Aims: Purpose of this case report is to share both challenges faced & the success stories experienced by Ahmadi Hospital-Training Team, related to planning & implementing phases for Competency-Based Training Programmes, over the last seven years, between 2008-2015; where existing healthcare competencies modules are reviewed, analyzed & updated every two years, abiding by Kuwait Oil Company, relevant training policies & procedures.

Methods: Medical Focus Groups are formulated from all various clinical, allied health staff, pharmacy, health informatics, multidisciplinary staff, who carries their organized competency literature review, comparative studies data analysis through regular Small Circle Meetings, by subject matter experts who are approached to provide depth & content validity selecting the most suitable recommended Competency Modules, defining competencies, selecting the suitable diversified learning tools; guided by Accredited Medical Schools experts' opinions via various weblinks, followed by online staff assessments (using Gap Analysis Discussions); finalized by online generated Personal Development Plans; valid for two years.

Results: Competency-based training findings & outcomes are linked & measured against pre-set Key Performance Measures on quarterly & yearly basis, where all senior managerial staff levels are directly held accountable; reflecting on Staff Performance Appraisals & Reward Systems, all through & down the line.

Conclusion: Ahmadi Hospital Professional Development Achievements for last seven training cycles, scores will be compared, valued and analysed.

Dercan Akpunar

Ph.D. Student, Gulhane Military Medical Academy, Turkey

&

Hatice Bebis

Associate Professor, Gulhane Military Medical Academy, Turkey

The Validity and Reliability of the Turkish Version of Back Pain and Body Posture Evaluation Instrument (BackPEI)

Purpose: Qualitative data tools are rare to measure adolescents body posture problems, symptoms such as back pain. In this context, evaluation of validity and reliability of the Turkish version of BackPEI which was developed in Portugal is intended in this study.

Methods: This study was planned as a methodological. Students who study at a secondary school are this research population. The sample size was calculated by the number of items of the scale x number of observations formula. The sample group was completed with a total of 139 students. Equivalent language and content validity was made for validity of BackPEI, then reliability was made. Data were collected through face to face interviews by researchers. Ethics Committee Confirmation and corporate permission has been received.

Results: As a result of five expert opinion 6th question revised again. Content Validity Index has been as high as 90.8 end of the calculations. Instrument's Turkish version was translated into English by an English teacher again. Criterion validity "Visual Analogue Scale (VAS)" is used. Spearman's correlation coefficient between last 3 months experienced back pain at question in the BackPEI and VAS score were found $r = -.684$ (0,60-0,70), $p = ,000$. So highly significant relationship were established. To test its reproducibility, the final version of the BackPEI was applied to 91 schoolchildren on two distinct occasions (test and re-test), separated by a 2-week interval. According to the kappa coefficient for questions 1-20 in the questionnaire, 3 were classified as "moderately fit", 15 as "good", 3 as "very good". The difference between the test-retest were not statistically significant ($Z = -, 127$, $p = , 899$).

Conclusions: Finally, it can be concluded that the BackPEI, constitutes a valid and reproducible instrument for Turkish adolescents.

Okla Al Horayess
Associate Professor, KACST, Saudi Arabia

The Analysis of Potassium Bromate in some Bread Improvers Commonly used in Saudi Arabia

Potassium bromate (KBrO₃) is prohibited in many countries, including Saudi Arabia. There is because of much concern regarding the human health effect of this substance. Samples from five well-known brands of local and imported bread improvers. Potassium bromate was estimated in the samples by determination of the total bromine (Br) using ICP-MS. The samples have shown high levels of bromate (66.8 - 99.02 mg/kg), which raises concerns about channels and mechanisms of bromate access to the bakery products. This requires more studies and investigations in this direction.

Alemayehu Ambel

Economist, World Bank, USA

Colin Andrews

Sr. Social Protection Specialist, World Bank, Ethiopia

Elizabeth Foster

Consultant, World Bank, Ghana

&

Qaiser Khan

Program Leader, World Bank, Ethiopia

Maternal and Child Health Inequalities in Ethiopia

Background: Official statistics show recent considerable progress in maternal and child health in Ethiopia. From 2000-2014 child stunting and underweight levels respectively declined by 17 and 15 percentage points. Similarly, infant (IMR) and under five (U5MR) mortality rates declined by considerable amounts. There has also been progress in key maternal and child health interventions. For example, full immunization coverage increased from 15% in 2000 to 25% in 2011. Also, from 2000-2014, use of modern contraceptives, antenatal care services and skilled birth attendant rates respectively increased by 34, 14, and 10 percentage points. We looked at how has this progress in the health sector been shared by different groups.

Methodology: We selected ten health status and health intervention indicators that are related to the MDGs of 1, 4 and 5. These include, stunting, underweight, wasting, infant mortality, under five mortality, full immunization, measles immunization, antenatal care (ANC), contraceptive prevalence and skilled birth attendant (SBA). We examined inequality trends by wealth, education and location using four Demographic and Health Surveys implemented in 2000, 2005, 2011 and 2014. We explored absolute and relative inequalities. We also investigated the dynamics of inequalities using concentration curves for different years. In addition, we conducted multivariate analysis to identify the proximate determinants of the health status and intervention indicators analyzed in this study.

Findings: From 2000-2014, absolute inequalities between the rich (top 60%) and the poor (bottom 40%) increased for most of the indicators analyzed in this study. The absolute differences were significant in recent years (2011 and 2014) but there were no significant differences between the two groups in earlier years (2000 and 2005). For example, absolute inequalities in child stunting significantly increased from 4.2 percentage points in 2000 to 9.8 [p<0.1] percentage points in 2014. Similarly, absolute inequalities in child wasting increased from 0.3 to

3.0 percentage points [$p<0.1$]. During the same period, absolute inequalities (in absolute percentage points) increased from 10.4 to 24.2 for ANC [$p<0.01$]; from 5.9 to 14.6 for modern contraception use by married women [$p<0.01$]; and from 7.7 to 19.3 for SBA [$p<0.01$]. We found similar health inequalities by women's education and location. Over the study period, relative inequalities increased for stunting, underweight and wasting. Relative inequalities narrowed slightly for immunizations and maternal health services although there is still a large pro-rich inequality. In addition to these simple absolute and relative measures of equity, concentration index results show that the poor faces proportionally higher levels child malnutrition and lower levels of health service utilization. No inequalities were observed in IMR and U5MR reductions. The multivariate analysis suggests that education, location and household characteristics would be important targeting dimensions to promote maternal and child health equity.

Margo Apostolos

Associate Professor, University of Southern California, USA

Mind and Body Fitness: Prehabilitation

The cost of health care is on the rise. The expense of health care may be reduced if people were to take better care of themselves. Individual health care is the responsibility of each individual. Programs are needed in preventative care for all ages.

My experience is in the areas of dance, sport, and dance medicine. Dancers and athletes use their bodies in their work and health and well being is crucial for optimal performance. The combined efforts of both dance and sport provide excellent examples of cross training and fitness. This paper will present the need for education in both mind and body fitness. Examples from dance and sport will be applied for adaptation to the general population of all ages.

The term prehabilitation has been associated with medical care prior to surgical procedures. This study suggests the combination of both mind and body fitness may enhance individual health care. Each individual is encouraged to take an active role in their own well being.

Najwa Al-Mously

Assistant Professor, King Saud bin Abdulaziz University, Saudi Arabia

The Introduction of Simulation-Based Education during Internal Medicine Clerkship: Students' Perception and Outcome

Background: Simulation based-education (SBE) spreads widely among medical schools worldwide. It needs proper integration in the curriculum to provide safe and effective learning environment, and to enhance the transfer of skills learnt to real clinical practice.

Aim: To evaluate two-time formats for introducing SBE in internal medicine (IM) clerkship based on the outcome of clinical training and students' perception.

Methods: This cross-sectional study included (37) 4th year students starting IM clerkship. Students were divided randomly into two groups: Group A ($n=18$) had their SBE sessions at the beginning of the IM course for 1 week. Group B ($n=19$) had their SBE sessions spaced over the duration of the clerkship. Grades of objective structured clinical exam (OSCE), mini clinical cases exam (MiniCex) and final block were collected. Using self-administered questionnaire, students' perception was also evaluated.

Results: A highly significant difference between OSCE grades of students in the two groups was observed being higher with Group A ($P < 0.001$). Overall, the outcome of SBE has a predictive impact on MiniCex and final course grades with Group A. 67% of students agree and strongly agree about the usefulness of having SBE sessions during IM clerkship; and 58.3% supported using intensive SBE sessions before contact with patient. SBE was perceived by 66.6% of the students to ease the step from the classroom to the real clinical world. **Conclusion:** This study attempts to highlight the importance of the integration of SBE for students starting their IM clerkship in order to provide an easier transition between simulated and clinical learning environment. If intensive SBE sessions were introduced to learners at the beginning of the clerkship, the outcome is better and has a predictive impact on MiniCex and final grades of IM clerkship. Future application of this concept in other departments needs to be evaluated with more emphasis on measuring the outcome of SBE learning process.

Simone Bedford

Senior Lecturer, Swansea University, U.K.

An Independent Review of the Assistant Practitioner Role

The shortage of nurses in the United Kingdom (UK) has been a cause for concern for many years. With cuts in healthcare budgets and less places available for training nurses in the UK, alternative staffing strategies have been explored. Following a request from our local health board, education and training was given to 8 healthcare support workers to develop them into the role of assistant practitioners by providing a Certificate in Health Care (level 4). An Assistant Practitioner is defined as a worker who competently delivers health and social care to and for people. They have a required level of knowledge and skill beyond that of the traditional healthcare assistant or support worker.

These eight assistant practitioners have been in post for 5 years and with the decrease in budgets and nursing shortage, the health board commissioned an independent review of the role to test its efficacy. The study was carried out during the months of January and February 2015 using semi-structured interviews. Preliminary results have highlighted three key areas for discussion, those being the role, skills and education.

This study intends to discuss these key areas and establish whether there is a need for assistant practitioners in today's National Health Service (NHS).

Carol Chamley
Senior Lecturer, Coventry University, U.K.
&
Jason Pritchard
Senior Lecturer, Coventry University, U.K.

An Examination of the Relationship Between the Provision of Primary Healthcare Education and Training, and the Regulatory Requirements Between Nurses, Doctors and EU Health Outcome Data in Relation to Paediatric Care. A UK and European Union Partners Perspective

The United Kingdom (UK) has witnessed an estimated 1,951 '*excess child deaths*' when compared to countries such as Sweden (Wolfe et al 2013). The causes are complex and multi-faceted with the inclusion of social deprivation and child poverty indicators, organisation and political naivety and underinvestment in specialist training of practitioners providing care for children and young people. Recent epidemiological and statistical data (Wolfe et al 2013, Viner et al 2014) reveals the complex process of deduction and identification of major causative factors, however there is repeated suggestion that the specialist education (by definition knowledge and skills) of primary healthcare professionals is an important contributing factor. This evidence must be supported further by more disease specific data which highlights that from a number of major EU countries (n=8) the UK has the highest number of deaths from pneumonia (0-14 years) and the highest rates of asthma deaths among children aged 6-7 and 13-14 (Wolfe et al 2013). Moreover in 2011, the Royal College of Paediatrics and Child Health (RCPCH)(UK) had already identified the gap and need for more general practitioners with explicit paediatric experience <http://www.theguardian.com/society>.

This paper will exemplify the regulatory guidance, standards, knowledge and skills of both nurses and doctors within primary healthcare. The purpose of which is to further examine the impact of regulation and standards, ensuring that children access the appropriate services and are assessed and managed by appropriately trained professionals. Notwithstanding examining the role of governing bodies and published guidance from the General Medical Council (GMC), Nursing and Midwifery Council (NMC) and the Care Quality Commission (CQC) which further identify specific recommendations regarding the education and training requirements of both GP's and

nurse practitioners (NP's) who deliver front line primary paediatric care.

'That children in the UK may die unnecessarily should be a matter of national shame' (RCPCH 2014).

Christophe Clesse

Ph.D. Student, University of Lorraine, France

Joelle Lighezzolo-Alnot

Professor, University of Lorraine, France

&

Sylvie De Lavergne

Clinical Psychologist, Majorelle Clinic Nancy, France

Psychical Impacts of Episiotomy on Primiparous Women: First Results of a Longitudinal Study Compared to a Literature Review

Considered as the most common surgical procedure worldwide, episiotomy can be defined as an incision around the vulva performed to enlarge it, in the aim of facilitate the childbirth. Rather mediatized, this practice raises many questions in the field of mental health. In this paper, we will resume the different consequences inherent to the practice of episiotomy, isolated by the scientific literature. We will assemble it within two fields of consequences (somatic and psychological). Then, we link our conclusions to the emergence of new restrictive policy about the use of episiotomy. Indeed, WHO advocated in 1996 that only 10% of childbirths should involve an episiotomy. In a second part, we will focus on the main bias of these studies. We will justify the interest of a specific research about episiotomy in the field of mental health to meet this literature lacks. To do it, we will present our longitudinal research starting in the 7th month of pregnancy and ending one year after delivery. In it, we are studying in a comparative way different possible psychological consequences inherent to the use of episiotomy. To do this, we use a standardized methodology which combines semi-structured clinical interviews (IRMAG, IRMAN ...), free clinical interviews, a projective test (Rorschach) and questionnaires (QIC, EPDS, CPQ WOMBLSQ4, SF36). Therefore, we can comprehend with shrewdness the question of psychic impacts of episiotomy in a qualitative and quantitative way by comparing it to other obstetric interventions. In this paper, we will present the first results obtained about a population of twenty-two primiparous women by focusing on body image, sexuality, quality of life, depressive affects, post-traumatic stress disorder and investment of the maternal role. Finally, we will consider the different implications and perspectives of this research which could improve the public health policies in the field of perinatal care.

Sue Coffey

Associate Professor, University of Ontario Institute of Technology,
Canada

Leslie Graham

Professor, University of Ontario Institute of Technology, Canada
&

Hilde Zitzelsberger

Assistant Professor, University of Ontario Institute of Technology,
Canada

**Meaningful Lifelong Learning in Nursing Education:
Barriers, Facilitators, and Outcomes**

Education of nurses from one level to another is a global phenomenon that is increasing in visibility, in part driven by international shortages in qualified healthcare providers at all levels. Nursing bridging education refers to a type of emerging, innovative educational program. In these programs, diploma prepared Registered Practical Nurses are able to receive credit for past education and practice, earning a degree in nursing and the opportunity to write the Canadian exam to become a Registered Nurse, in a much shorter period of time than would otherwise be the case. But in the absence of evaluative data about the efficacy of this educational model, these programs are often referred to disparagingly as a 'backdoor' route to becoming a Registered Nurse. This presentation provides an overview of an expanded, six-partner evaluation of RPN-to-BScN bridging education in Ontario, Canada. This study, which included fully half the bridging programs in Ontario, used a mixed-method design and collected data on student and faculty perceptions of barriers, facilitators, and outcomes of this type of educational innovation across a variety of program offerings. Qualitative analysis of student perceptions of the impact of bridging education on personal and professional levels was explored. Quantitative analysis of student performance and behaviours was evaluated, including indicators such as transfer credit, time to program completion, attrition/retention rates, and average years out between the completion of a Practical Nursing diploma and the start of a bridging program. Academic performance of nursing bridging students compared to health sciences students was also analyzed. This presentation will provide an overview of these findings and discuss the merits and challenges of creating meaningful lifelong learning opportunities for nurses that lead to both enhanced

professional development for individual nurses and overall advancement of the nursing profession.

Suranjana Datta

Senior Executive, Apollo Gleneagles Hospitals, India

Sujoy Kar

General Manager, Apollo Gleneagles Hospitals, India

&

Tamara Ray

Executive, Apollo Gleneagles Hospitals, India

Assessing Burden and Quality of Life for Caregivers of Chronically and Terminally Ill Patients - An Evidence Based Systematic Review from a Global Perspective

The paradigm shift from institutionalised care to community care has resulted in caregivers emerging as key players in patient centric care. Care giving for all chronically/terminally ill/incapacitated patients exacts a tremendous toll on the physical (compromised immune functions), psychosomatic (anxiety, depression) and social health (restricted participation, isolation) of caregivers. Globally over 43.5 million caregivers suffer from the burden which is generally overlooked by Clinicians. It is imperative that the burden domains of a caregiver either as parents, children, spouse or a formal caregiver, be indentified and their quality of life (QoL) promoted. Stressors such as duration of care giving, constant need of alertness, worsening of disease symptoms, medical management, loss of the care recipient, financial constraints, personal sacrifices, coping strategies, and sometimes the basic lack of awareness towards their own health give rise to poor quality of life for the carers. In this paper we will systematically review.

- 1) Interventions taken globally to assess Burden of Caregiver (BOC)
- 2) Determine causal factors
- 3) Look at how the impact has been measured using questionnaires/ interviews, and
- 4) Eventually how they affect the quality of life of the caregivers.

We will take into account all relevant citations and reviews that addressed caregiver burden of emotionally or financially committed caregivers, within an age limit of 18-80 years, irrespective of gender and marital status. Data source of citations from five electronic databases (Pubmed, Medline, CINAHL, Embase and Ovid) were searched for the period of last ten years. OAJSE (Open Access Journal Search Engines)

have been used too. Systematic reviews that include *“end of life care”*, *terminal illness*, *burden of caregiver (BOC)*, *clinical and social outcome*, *mental health*, *psychometrics* and *care giving* were considered including peer reviewed journals representing original work. A comparative analysis followed based on BOC and QoL scores. The presentation will construe the suggestions that will contribute to caregiver health promotion and awareness.

Mukesh Doble

Professor, IIT Madras, India

&

Pranav Kumar Prabhakar

Assistant Professor, Lovely Professional University, India

Synergistic Interaction between Phytochemicals and Oral Antidiabetic Drugs Leading to Enhanced Glucose Uptake in Cells

Diabetes mellitus (DM) leads to endocrine disorder which is the third main cause of death. It is mainly due to defective or insufficient insulin secretory response. There are millions of children and adults in the United States who have diabetes and it causes about 5% of all the deaths globally each year [1]. The ethnobotanical information report says that there are about 800 plants that have antidiabetic properties, but experimental proof for the activities of only 410 plants is available [2].

Ferulic acid is a phenolics phytochemical present in the plant cell wall. Eugenol is a phenyl propanoid extracted from certain essential oils including clove oil (*Eugenia aromaticum* or *Eugenia caryophyllata*), nutmeg, cinnamon, and bay leaf. Traditionally it has been used in dentistry, for abdominal pain, and as an acaricidal, local antiseptic and anesthetic. Both these phytochemicals were used in combination with two commercial drugs, thiazolidinedione (THZ) and metformin, to study the glucose uptake by L6 muscle cells [3]. The study reveals that both the phytochemicals have enhancing effect on glucose uptake. They act in synergy with the two commercial drugs. Ferulic acid in combination with metformin (20 μ M) and THZ increases glucose uptake considerably with reference to the base value (without the drugs or the natural products). Eugenol also in combination with the drugs increases the glucose uptake. Our findings suggest that the phytochemicals can replace the commercial drugs in part, which could lead to a reduction in toxicity and side effects caused by the later.

Carren Dujela

Project Coordinator, University of Victoria, Canada

&

Neena Chappell

Professor, University of Victoria, Canada

The Role of Pets in the Lives of Those Living With Dementia in the Community

Animal companionship is increasingly recognized as a potentially important source of support and health for those living with Alzheimer's disease and related dementias that are residing in the community. Much of the current literature focuses on therapeutic or visiting animals in nursing homes or day programs with less known about the function pets serve in the private home. Using a symbolic interaction perspective this paper examines the perceived benefits of pet ownership in assisting individuals with mild to moderate dementia from the family caregivers' viewpoint. The sample consists of 304 caregivers in British Columbia, Canada who are caring for a family member diagnosed with dementia where the care recipient is the primary pet owner. Preliminary findings suggest that pet ownership may be beneficial to the care recipient (better mood, more likely to be in the community, maintaining identity). However, there are negative factors for the family caregiver that must also be considered (feels less appreciation and an increased financial strain).

Isabelle Dumand

Psychologist, Specialised Hospital Center of Jury-les-Metz, France

Christophe Clesse

Lecturer, University of Lorraine, France

Michel Decker

Psychiatrist, Specialised Hospital Center of Jury-les-Metz, France

Christine Savini

Nurse Manager, Specialised Hospital Center of Jury-les-Metz, France
&

Joelle Lighezzolo-Alnot

Professor, University of Lorraine, France

When Psychosocial Rehabilitation Meet the Neo- Evolutionary Psychology: Interests, Impacts and Perspectives on Accompaniment

In France, for fifteen years, research shown that the contribution of neuropsychology is a major asset when it's devoted to the accompaniment of unadapted people or, to the subjects who present a reduced autonomy. Indeed, these developments have helped to differentiate the cognitive disorders from the psychic disorders and their respective inter-incidence on the adaptation of the user to its living environment. Referring to the neo-evolutionary approach of the environment adaptation, we think today that this aspect could help the conceptualization of the psychic accompaniment. Conséquently, we argue that the accompanying should think about mediatize in a same time a dynamic of compensation (adapting the environment to the subject) and a reconstruction dynamic (adapting the subject to the environment) to maximize its chances of reintegration into the social fabric. In these two aspects, it is possible to combine some reconstructive approaches (cognitive remediation, psychoanalytic work in the long term ...) to compensatory approaches (brief therapies, psychosocial skills training, relaxation ...). During this presentation, we will mediatize a theoretical bedrock related to the emergence of these new integrative accompaniments. Finally, we will justify and illustrate our words by presenting quantitative and qualitative results obtained from the generalization of this work within two mobile teams of psychosocial rehabilitation.

Richard Dumont

Advisor Health, Province of Noord-Brabant, 's-Hertogenbosch, The
Netherlands

Knowledge Brokers to Establish Healthy Public Policies: An Evaluation Study

Background: Public health is to a large extent determined by non-health-sector policies. One approach to address this apparent paradox is to establish healthy public policies. This requires policy makers in non-health sectors to become more aware of the health impacts of their policies, and more willing to adopt policy measures to improve health. We worked with knowledge brokers to set the agenda for health and to specify health promoting policy alternatives. This study aimed at evaluating the results of how knowledge brokers influenced other policies.

Methods: We employed four knowledge brokers who worked for the provincial government of Noord-Brabant in the Netherlands. They worked with colleagues of 10 non-health-sector policies and external organizations during the period 2011-2014. We evaluated the knowledge broker approach by external research through interviews (n=10) and a questionnaire (n=52).

Results: Our knowledge brokering strategy led to the adoption of several policy alternatives in individual policy cases, and was especially successful in agenda setting for public health. More specifically, health became an issue on the formal policy agenda. Our study corroborated the complexity of developing health in other policy areas because of trust, management support, clarity of roles and realistic policy alternatives. Sector-specific responsibilities hampered the adoption of cross-sectoral policy alternatives, while thematically designed policy documents offered opportunities for including them. In recent years we were particularly successful in agenda setting. The recommendations for the future are: create conditions for health from policy preparation, focus on results, involve management participation and invest more in knowledge, skills and co-creation.

Conclusions: The employment of a health brokers who work in non-health-sectors seems to be a promising step in establishing healthy public policies. Future studies are needed to explore the usefulness of our approach in further implementation and policy integration.

Rasika Deepani Edirisinghe

Medical Officer, Base Hospital, Horana, Sri Lanka

&

Nilmini Hemachandra

Manager-Maternal Care, Family Health Bureau, Ministry of Health, Sri Lanka

Knowledge, Attitudes and Practices of Public Health Midwives in the District of Kalutara on the Revised Maternal Care Package and Issues Faced by them in Implementing the Package

Successful maternal care programme in Sri Lanka was reviewed in 2007 to minimize the underutilization of available resources, by pass phenomena, duplication of service and to improve the quality of care. To overcome these gaps a revised maternal care package was introduced in 2011.

One year after the implementation, this cross sectional descriptive study was carried out in Kalutara district, western province with the objectives of assessing knowledge, attitudes, and practices of the public health midwives on the revised maternal care package and issues faced by them in implementing the package.

Pre tested self-administered questionnaire was used among 375 Public Health Midwives working in Kalutara district from August to September 2013 to assess knowledge and attitudes.

The mean score for the overall knowledge was 86.3%. For the different components of the maternal care, 75% of them had scored more than the average except for the antenatal clinic care, antenatal domiciliary care and assessment of Edinburgh post-partum depression scale. Mean score for the attitude questionnaire was 85.2%. Nearly 25% of the population had negative attitudes towards the birth and emergency plan, relationship between field and institutional staff, achievability & feasibility of the package.

The knowledge vs the attitudes and the service experience vs the attitudes had shown a significant statistical association.

Mohamed Eladl

Assistant Professor, University of Sharjah, UAE

Akram Jaffar

Assistant Professor, University of Sharjah, UAE

&

Abdulmonhem Obaideen

Consultant Radiology, University of Sharjah, UAE

Exploring a Liver Module in Learning Ultrasound Anatomy

Background: Ultrasound anatomy is turning to become an integral part of clinically oriented anatomy teaching.

Aim: Using the liver and biliary tree as a teaching module to explore the effectiveness of early ultrasound hands-on as an adjunct to cadaveric anatomy teaching in learning living anatomy and acquiring preliminary skills necessary to identify normal anatomical structures.

Methods: The study was conducted on 180 medical students during the gastrointestinal system unit in a problem-based learning curriculum. The liver and extra-hepatic biliary passages were studied during theoretical and practical anatomy sessions. The students were then exposed to a slide-show pre-test in which they were asked to identify, on ultrasound images, 10 structures that are commonly demonstrated in right sub-costal and inter-costal approaches. The students also had two theoretical sessions given by a radiologist on the principles of ultra-sonography and ultrasound imaging of the upper abdomen. Students in groups of 7, supervised by radiologists and anatomists, had a one-hour hands-on experience with using the ultrasound machine on simulated pre-scanned normal patients. Students received a checklist of 10 structures, which they should demonstrate manually. A post-test to identify the ultrasound appearance of the checklist structures followed.

Results: Post-test results revealed a significant improvement in comparison to the pre-test in identifying the structures. The liver was the most easily identified manually while the common bile duct was mostly identified with assistance. The majority of students admitted that prior knowledge of anatomy is essential in the manual identification of ultrasound structures. Similarly, integrating ultrasound experience is useful in consolidating understanding the anatomical relations.

Conclusion: Early ultrasound hands-on is an effective tool in helping the students to make use of the 3-D anatomical data in identifying the same structures when they appear on the ultrasound image.

Abdulateef Elbadawi

Assistant Professor, University of Tabuk, Sudan

Assessment of HIV/AIDS Comprehensive Knowledge among Sudanese University Students 2014

Background: Comprehensive correct HIV/AIDS knowledge (CCAK) is defined as correctly identify the two major ways of preventing the sexual transmission of HIV, and reject the most common misconceptions about HIV transmission. In Sudan there are no studies conducted to assess the CCAK among university students.

Methods: A cross sectional analytic study was conducted aimed to assess the CCAK among University students. A total of 556 students from two universities were enrolled. Data was collected by using the self administered pre-tested structured questionnaire. Chi square was used for testing the significance and P. Value of ≥ 0.05 is considered as statistically significant.

Results: 97.1% of study subjects ever heard about a disease called AIDS while only 28.6% of them were knowing the HIV case in their community. Most (82.7%) of students had CCAK however, significant differences (P. Value = 0.003) was found between Male and female in their level of CCAK. Females showed a better level of CCAK than males (OR = 2.1).

Discussion: High rate of CCAK among university students is obviously noticed and their higher education may be the explanation. A similar study was conducted in Ethiopia in 2011 and it showed a low rate of HIV knowledge among similar group. In 2012 another study conducted in Tanzania showed high level of knowledge among university students in spite of spreading of misconceptions towards HIV transmission.

Conclusion: There is a high level of CCAK among university students in Sudan and females are more likely to have CCAK than males.

Qingping Feng
Professor, Western University, Canada

Pregestational Diabetes and Congenital Heart Defects: Role of Reactive Oxygen Species

Women with pregestational diabetes are at a high risk of having babies with congenital heart defects (CHDs). The mechanisms of CHD induction in the offspring of women with pregestational diabetes remain elusive. With an ever-increasing rate of diabetes in young adults, there is a pressing need to understand the underlying mechanisms and initiate effective preventative strategies. Reactive oxygen species (ROS) mediate a number of cellular processes during embryonic development including cell proliferation, differentiation and migration. A notable source of cellular ROS is produced by NADPH oxidase, which has 5 isoforms (NOX 1-5). Despite the well-known physiological roles of ROS, its significance in fetal heart development is not well defined. We aimed to study the role of ROS signaling in heart morphogenesis and unravel molecular mechanisms of CHDs induced by pregestational diabetes. To this end, a mouse model of pregestational diabetes induced by streptozotocin was employed. A spectrum of septal, conotruncal and coronary artery malformation were identified in the offspring of mice with pregestational diabetes. ROS levels were elevated and glutathione levels were diminished in the fetal hearts of diabetic mice. Oral treatment with an antioxidant N-acetylcysteine (NAC) significantly diminished the incidence of CHDs and prevented coronary artery malformation in the offspring of pregestational diabetic mice. Furthermore, pregestational diabetes reduced cell proliferation, altered transcript levels, and disrupted epithelial to mesenchymal transition (EMT) in the fetal heart of diabetic mice, which were all prevented by NAC treatment. To further study the role of basal ROS production in embryonic heart development, a NADPH oxidase Nox2 knockout mouse was utilized. We demonstrated that loss of Nox2 expression decreased ROS production, and impaired TGF- β /BMP signaling and endocardial EMT in embryonic heart. This ultimately resulted in cardiac septum and valve defects. Thus, under normal physiological conditions ROS production promotes heart development whereas excess ROS levels during pregestational diabetes induce CHDs. These studies show maintaining a balance of ROS levels is essential for normal embryonic heart development in mice. Furthermore, NAC may have therapeutic potential in preventing the development of CHDs during pregestational diabetes.

Abdul Ghaffar

Postdoctoral Scholar, Chulalongkorn University, Thailand

Sathirakorn Pongpanich

Associate Professor/Deputy Dean, Chulalongkorn University,
Thailand

Najma Ghaffar

Associate Professor, Bolan Medical Complex Hospital, Pakistan
&

Tahir Mehmood

Assistant Professor, Rafah University, Pakistan

Factors associated with Utilization of Antenatal Care Services in Balochistan, Pakistan: An Analysis of the Multiple Indicator Cluster Survey (MICS) Balochistan 2010

Objective: The aim of this paper is to identify factors affecting utilization of ANC in Balochistan province, Pakistan

Methods: Data on ANC utilization, together with social and economic determinants, were derived from Multiple Indicator Cluster Survey (MICS) conducted in Balochistan, in 2010. We have established the model to identify the influential factors contributing towards the utilization of ANC by logistic regression, where model selection was done by AIC and BIC criterion.

Results: Factors like household wealth, education, age at first marriage, number of children surviving and spouse violence justification found significantly associated with ANC coverage. Literate mothers showed 2.45 times more tendency to have ANC, and women having symptom of newborn at birth that needs hospitalization decreases the chances of ANC 0.47 times. With the increase number of surviving child, women risk of not having ANC increased by 1.07 times and those who socially think their spouse violence is justified are also at 1.36 times more at risk.

Conclusion: findings of this study reveal that women who were literate and had high Wealth index score had more chances to obtain ANC. Age of the women at first Marriage, number of living children, symptom of any illness to neonates at birth that needed hospitalization and women who justify spouse violence had less chances to obtain ANC. The components of ANC visit; urine sampling and injecting TT during last pregnancy increased the frequency of visits and ANC from doctor and TBA decreased the number of visits. More comprehensive approaches are needed to improve health indicators among rural areas.

Dimitra Giannou
Ph.D. Student, Durham University, U.K.

Understanding Homophobia and Transphobia in Context: A Qualitative Study on Health Inequalities of LGBT people in Greece

The purpose of this presentation is to discuss the preliminary findings of a qualitative study on the health inequalities that are experienced by the LGBT people in Greece. The study focuses on the role of homophobia/ transphobia and the ways that these social forces are at least major environmental and social stressors that increase disease vulnerability, limit access in health care and can predict health – related risk factors that unequally burden the LGBT people in contrast to heterosexuals and cisgender people.

The study is in line with the anti-oppressive purposes of social work research as it enhances the social acknowledgment and appreciation of sexual orientation as a social determinant of health inequalities. It is also anticipated that the qualitative analysis of the data will advance the potential for an adequate acknowledgment and affirmation of the oppressive character of homophobia/ transphobia in Greece and contribute to the efforts of the LGBT community and those health professionals, including social workers, who are interest at promoting inclusiveness in health care services.

Findings of this study show that the presumption of heterosexuality along with the pathologization of anal sex and not-penetrative sex are important barriers for lesbians, bisexual women and gay/bisexual men to accessing appropriate health care services and appropriate health information. Disclosure of sexual orientation to doctors was often avoided as this process evoked anxiety and fear of discrimination. Transgender people appear to have extremely limited options for health and mental health services which support transition within a context of a generalized discrimination and exclusion in education and employment. The possibilities of broadening the health rights agenda of the Greek LGBT community are discussed within a context of an ongoing deconstruction of the National Health System in Greece.

Ibrahim Gosadi

Assistant Professor, King Saud University, Saudi Arabia

Abdulaziz Bin Saeed

King Saud University, Saudi Arabia

Ali M. Al-Hazmi

King Saud University, Saudi Arabia

Amin A. Fadl

King Saud University, Saudi Arabia

Khalid H. Alharbi

King Saud University, Saudi Arabia

&

Mazin M. Swarelzahab

Ministry of Health, Saudi Arabia

Evaluation of Applied Public Health Emergency System at Prince Mohammed International Airport in Almedinah during Hajj Season 1435: A Qualitative Case Study

Objectives: During Hajj season 1435, several public health measures were applied by the Ministry of Health at Prince Mohammed International Airport in Almedinah. However, several operational defects affected the provision of preventive health services for passengers and airport workers. This study was aiming to investigate operational gaps and defects regarding the applied public health emergency system at the airport during 1435 Hajj season and to provide appropriate solutions.

Methodology: This study is a qualitative case study conducted at Prince Mohammed International Airport in Almedinah during 1435 Hajj season. Data were collected via semi-structured interviews, focus groups and policy documents reviews. Interviews were conducted with the 14 individuals of the airport's decision makers and relevant health practitioners. Data were recorded via taking notes during interviews and data coding was performed to produce main themes and subthemes of the study.

Results: The main findings of the study revealed three main defects affecting the applied public health emergency system at the airport. The main themes were mainly related to shortage in logistics related to public health emergency systems, shortage in proper documentation of policies and lack of documented protocols of communications between airport stakeholders.

Discussion and Conclusion: The study highlighted main factors hindering application of public health emergency measures at the

airport. Public Health Emergency Contingency Plan was proposed as a method to regulate process of providing logistics for public health preventive services, method of producing documented policies and methods of producing Memorandums of Understandings as communication regulators.

Gawron Grzegorz

Assistant Professor, University of Silesia in Katowice, Poland

&

Paulina Rojek-Adamek

Assistant Professor, Andrzej Frycz Modrzewski Krakow University,
Poland

Working against Exclusion: Design for All as a Tool for Improving Social Participation

The designed world doesn't suit anyone perfectly. At times, we all have problems with the spaces we live in and the products we use, which according to the dramaturgical perspective in different ways may affect our ability to play specific roles. So, disability (in broad sense) is a common condition, and more pervasive than many people realize. Most likely, everyone will experience disability in his or her lifetime, even if only temporarily (In its physical social or cultural meaning). The environment (including society) in which we live is created for a mythical "average" group of people, but in fact this group does not exist. Every individual is unique and as a group, the human species is quite diverse.

It is possible to design an environment to suit a broad range of users, (including: children, older adults, people with disabilities, people of atypical size or shape, people who are ill or injured, and people inconvenienced by circumstance). This approach is known as Universal Design (or Design for All, Accessible Design) which can be defined as the design of products and environments to be usable to the greatest extent possible by people of all ages and abilities. Universal design respects human diversity and promotes inclusion of all people in all activities of life.

The proposed speech will be a presentation of the idea of Universal Design as a way of creating social participation. The theoretical analysis will be supplemented with presentation of selected solutions in universal design implemented in various countries including their socio-cultural context.

Tai Liang Guo

Associate Professor, University of Georgia, USA

&

Wan-I Oliver Li

Associate Professor, University of Georgia, USA

Sexually Dimorphic Effects of Genistein in Various Murine Diabetic Models

Immune dysregulation not only serves as a hallmark of type 1 diabetes (T1D), but also directly contributes to the pathogenesis of type 2 diabetes (T2D). The isoflavone genistein (GEN; 4,7,4'-trihydroxyisoflavone), which is known to interact with the estrogen receptors and act as an antioxidant to modulate immune responses, is a phytoestrogen found at high levels in soy products. The exact role of estrogen in diabetes is unknown. The objective of this study was to determine the effects of GEN on the time of onset and/or the incidence of diabetes in various murine diabetic models, when administered by gavage once every day at physiologically relevant doses. In female non-obese diabetic (NOD) mice (T1D), oral dosing of GEN reduced the incidence and increased the time to onset of T1D when fed a soy- and alfalfa-free (SOF) diet. However, administration of GEN by gavage increased the incidence of cyclophosphamide-accelerated T1D in male NOD mice. In streptozotocin (STZ)-induced diabetes, GEN exposure increased blood glucose levels (BGLs) in female B6C3F1 mice. In STZ-induced diabetic male B6C3F1 mice fed the SOF diet, although the BGLs in GEN-treated mice were numerically lower than vehicle mice following the third injection of STZ, none of the changes reached the levels of statistical significance. In the T2D db/db mice, GEN exposure decreased the body weights when compared to the vehicle control group in both male and female mice. However, in the 19-week study period, changes in BGLs were only observed at one time point with a decrease in females and an increase in males in week 3 and 17, respectively. The differential effects of GEN on blood glucose levels in male and female mice suggest that the estrogenic properties of this compound may contribute to its modulation of diabetes (supported in part by the NIH R21ES24487 and by NIEHS contract NO1-ES-05454).

Pandu Hailonga-van Dijk
Director, Namibia Global Fund Programme Management Unit,
Namibia

Social Determinants of Health in Babylon, an Informal Settlement at the Outskirts of Windhoek (the Capital City of Namibia) Urban- Slum and Health Inequality

There is a growing need to pay attention to the social determinants of health in developing countries, while a number of studies have been carried out, very few studies have been conducted in Southern Africa in particular. Social determinants of health are circumstances in which people are born, live and grow up, they include housing, income and income distribution, jobs, education, food security, gender ethnicity, class and race. This study used the ecological theory in exploring the social determinants among the communities in the informal settlement at the outskirts of Windhoek, Namibia.

Methods: The study used qualitative research methods; data was collected through interviews and focus group discussions. Five (5) focus group discussions were held with both men and women between the ages of 20 and 60 years. Six (7) interviews were conducted with key players i.e. 3 community leaders and 4 service providers. Desk review was conducted by reviewing the policies and guidelines of the Windhoek Municipality as well as the register of the nearest clinics analysing the common diseases in the community.

Interview questions were developed with the focus on the five ecological levels i.e. Individual; Relational; Community, Institutional and Society. Guiding questions focused on availability; affordability of health and community services; Education, Food, Water and Sanitation, housing, Transportation, safety, employment opportunities, health and community challenges, Alcohol and Gender Based violence.

Results: The findings revealed that Social Determinants of Health were identified at all five levels. At the individual level, it was noted that self-esteem, employment, educational level, housing and engagement with own health played a critical role in the health outcomes. At the Family and Peers level it was found that financial and psychological support from friends and family members were crucial to the health of the individual. At the community level, it was found that community cohesion, relationships with the other community members was relevant. In addition, community members felt that there was a number of negative forces at work, there was no recreational activities, and the majority of the community members abuse alcohol. There was

a mixed feeling where some members felt there was no community cohesion and according to them this have had an impact on alcohol abuse, Gender Based Violence and the inability to speak with one voice on issues affecting the community. Furthermore, findings suggest that structural factors were one of the critical social determinants of health i.e. poverty, education, access to water and sanitation and the housing situation. The overall environment was not conducive for health as community members did not have access to sanitation.

In conclusion, the study highlight that social determinants of health requires multidisciplinary approach beyond Government, and there is a need to engage civil society and the private sector. There is a need to empower communities and most importantly engaging them and consulting them. The study also noted that poverty, unequal access to health care, lack of education, lack of housing and sanitation and lack of policy as it relates to the status of this informal settlement play a critical role in determining the health of this population.

Parichehr Hanachi

Associate Professor, Alzahra University, Iran

Hoseini Soreh

Alzahra University, Iran

&

Nazarali Parvaneh

Alzahra University, Iran

The Effect of Green Tea Consumption and Physical Activity on Lipid Profiles and WHR on Sedentary Women

Background and purpose: Obesity is a complex disorder that is characterized by excessive accumulation of adipose tissue and is linked to many health problems including cardiovascular disease. The aim of this study is to investigate the effect of green tea consumption and physical activity on lipid profiles and WHR on sedentary women.

Materials and Methods: Among women who were referred to gymnasium 40 females with an age range of 20-30 years (BMI= 24 ± 1.2) were recruited in four groups: control, physical activity 8 weeks (tea, green tea, along with the activity of physically group. The lipid profiles and WHR at the beginning and end of the study were analyzed.

Results: The results shows, TG and WHR were reduced significantly ($p<0.05$) in green tea groups, HDL significant ($p<0.05$) increase in the exercise group and green tea-exercise. LDL ratio to HDL showed significant reduced in green tea group ($p<0.05$) and green tea-exercise group ($p=0.001$).

Conclusion: These findings suggest that may green tea catechin consumption enhances exercise-induced changes in WHR abdominal fat and serum TG. The reverse relationship between the WHR and green tea catechin consumption with exercise found in the present study seems to correspond to what happens in experimental situations in the human metabolism. The results confirm the beneficial effects of green tea extract supplementation on anthropometric factors and some of lipid profile on sedentary women.

Kan-Lin Hsu

Assistant Professor, Tunghai University, Taiwan

From Commodity Fiction to Fictitious Health: A Polanyian Discourse Analysis to Health Foods

The nature and source of value in biotech and pharmaceutical products has been an intricate issue in political economy. This paper aims to contribute to this issue from a Polanyian approach. The argument goes in two parts. The first part focuses upon Polanyi's concept "commodity fiction" conventionally ignored while significantly relevant and complementary to "fictitious commodity." A preliminary elaboration of the concept "commodity fiction" with critical discourse analysis results in a new concept "health fiction" that might shed new light on the value-form and useful form of biotech and pharmaceutical products. Drawing on the foregoing Polanyian concepts, the second part focuses on current epidemiological researches on the health effects of a variety of health foods. This paper argues that typical statement such as "significant effects of certain component *ceteris paribus*" characteristic of mainstream epidemiological researches has been "health fiction" insofar as there is no *ceteris paribus* in real social world. Accordingly, health effects supposed to be gained through consumption of health foods are "fictitious health" in that the supposed effect effects are real only in statistical context. This paper concludes with a Polanyian explanation of the biotech and pharmaceutical markets in terms of the co-construction of regulation, academic epidemiological research and commercial marketing.

Jay Jullie

Lecturer, University of Witwatersand, South Africa

Teaching of Psychomotor Skills in Occupational Therapy Students: Student-directed vs Teacher-Directed Learning

Introduction: The Occupational Therapy Department at the University of the Witwatersrand in South Africa adopted a problem-based learning approach with student-directed learning to promote lifelong learning skills in students. A dilemma however was identified with this approach during the teaching and learning of psychomotor skills for physical assessment. Physical assessment skills such as muscle strength and coordination assessments are necessary for effective assessments of patients. Exploration into student- vs teacher-directed learning with psychomotor skills followed, to support the development of competent health care professionals and to protect patients from exploitation by incompetent students. This study therefore aimed to evaluate the effectiveness of student-directed vs teacher-directed methods of psychomotor skill learning, specifically physical assessment skills, in second year occupational therapy students.

Methods: A quantitative analytical longitudinal design was selected. The sample consisted of second year BSc Occupational Therapy students from 2007-2010. Students in 2007-2008 were taught physical assessment skills using a student-directed approach while students in 2009-2010 were taught using a teacher-directed approach. Student pass rates and supervisor comments were compared and analysed according to Fitt and Posner's motor skills learning theory, to ascertain which approach promoted a better student outcome.

Results: The 2007-2008 cohorts demonstrated poor psychomotor skill ability. Students were unable to combine observation and clinical reasoning with the motor part of the assessment task. The 2009-2010 cohorts demonstrated improved performance speed and accuracy with emerging reasoning and observation skills. Overall pass rates improved from 90% in the student-directed approach to 100 % in the teacher-directed approach.

Conclusion: Whilst a student-directed approach may be valuable in developing life-long learners within the health sciences, the advantage of adopting a more teacher-directed approach in the teaching and learning of psychomotor skills is recommended.

Nezar H. Khdary
Consultant, KACST, Saudi Arabia

The Distribution of Influenza Cases in Crowded Area, An Epidemiological Study

The flu pandemic is a global outbreak of a new strain of influenza A virus subtype H1N1, termed Pandemic H1N1/09 virus by the World Health Organization (WHO), which was first identified in April 2009. The disease has also been termed novel Influenza A(H1N1) and 2009 H1N1 flu by the U.S. Centers for Disease Control and Prevention (CDC), and is commonly known as swine flu. The main strain of the virus has been termed A/ California/ 07/ 2009 (H1N1) by scientists. This study was conducted to describe the epidemiology of influenza A (H1N1) infections in crowded place (Makkah) during 2009. A descriptive study was carried out among attendants at hospitals and primary health care centers in Makkah, irrespective of age and sex. The data were collected by interviewing suspected persons using a pre-designed questionnaire, clinical examination, and specific laboratory investigation. A total of 1,138 subjects were included in the study. Among the study population, 25% of the cases between 15 and 24 years old were found positive for influenza A (H1N1) by PCR technique. Although a significant population was affected by influenza A (H1N1) during 2009 in Makkah. Although a significant population was affected by Influenza A(H1N1) during 2009 in Makkah, the efforts and steps taken by health authorities at all levels, especially those in Directorate of Health Affairs of Makkah helped to avert the mortality associated with Influenza A(H1N1) among the residents and those coming for Umra and Hajj to Makkah by providing treatment facilities and timely diagnosis. Because, the influenza viruses mutate and produce new strains, we stress the importance of following basic instructions and dissemination the information among the community, which will limit the spread of the disease. This includes the yearly flu vaccination as the first and most important step in protecting against Influenza. Covering the nose and mouth with a tissue when coughing or sneezing, throwing the tissue in the trash after using, and washing the hands often with soap and water is also recommended. If soap and water are not available, the use of an alcohol-based hand rub can be an alternative method, as well as avoiding touching the eyes, nose, and mouth as germs can be spread that way. If someone is getting sick, they should stay home from work or school and limit contact with others to keep from infecting them. Public health advice must be followed regarding

school closures, avoiding crowds, and other social distancing measures to reduce or prevent the spread of Influenza.

Brian Kavanagh

Ph.D. Candidate, Open University, U.K.

MSM's Understandings of their Risk of HIV Infection in a Post-Antiretroviral Society

This paper sets out to explore how men who have sex with men (MSM) understand their risk of HIV infection in the context of rising HIV infections among this group in the UK. While there has been research to suggest that this rise is due to an increased uptake of HIV testing by MSM (Dougan et. al. 2007), many others have questioned if the effectiveness of antiretrovirals has caused MSM to re-evaluate their risk of HIV infection and their need to practise safer sex. Experts in the field of HIV can define risk, but cannot reduce or remove it, so self-surveillance and individual responsibility is encouraged. This focus away from the disease and onto personal behaviour has drawn attention to lifestyle in the discussion of prevention (Blaxter, 1990). HIV becomes another risk for each individual to manage and it is left to the individual to make a risk assessment about their partner. Even when discussions about HIV status take place, partners may wish to withhold, not to disclose, be unaware of their own HIV status, or be misunderstood by their partner. This has given rise to confusion about who is a risk to these men when choosing sexual partners. Based on the results from a mixed methods online survey, this paper will examine how MSM understand this HIV risk in a post-antiretroviral society and the challenges this presents for sexual health promoters.

Yoo Kim

Professor, Kyungpook National University, South Korea

&

Myeong Cha

Researcher, Kyungpook National University, South Korea

The Survey and Education on the Dietary Life of the Children and their Parents in South Korea

We investigated the knowledge, attitudes, and behavior on dietary life, especially on the intake of sugar, fat and sodium, of the children (N=951, at the age of 7-9) and their parents (N=412) in South Korea. Although the children's knowledge level was very low. They perceived that the excessive intake of sugar, fat and sodium w cause health problems and should be reduced. The 90% of the children had snacks everyday and mostly chose breads, biscuits, and chips as snack food. The main concerns of the parents on their children's diet were nutrition (44.9%), taste (24.3%), and safety (23.5%). They provided their children's refreshments with purchased-food than home-made food such as fruits (62.8%), milk (55.5%), bread (47.1%), and others (23.3%). The 76.5% of the parents performed home-education for their children's diet, especially on the topic of 'balanced diet (83.9%)', 'healthy food (53.7%)', 'three meals a day (40.2%)'. They obtained dietary information from TV (65.2%), internet (12.0%), and newspaper (7.0%). From this research, we understood that the parents perceived their children's dietary behavior quite correctly and they consider diet education positive to their children's dietary life. However, the programs and materials available for diet education were limited. Therefore, we developed the guidebook on healthy dietary life for the children and the adult. The books are easy to understand, fun to play with, and designed to practice.

Deborah Kim-Lu

Ph.D. Graduate, City University of New York Graduate Center, USA

Access to Healthcare for Vulnerable Asian American Subgroups in the United States

Objectives: This dissertation examines the barriers for access to healthcare for the top four most uninsured Asian American subgroups (Bangladeshi, Cambodian, Korean, and Pakistani communities). *Methods:* Combining quantitative and qualitative approaches, this study consisted of: (1) an in-depth review of the Health Services Research literature; (2) qualitative interviews with 24 national health experts and advocates on Asian American health; (3) a survey of a nonprobability sample of 107 Koreans in the tri-state region (Connecticut, New Jersey, and New York) using the *Access to Healthcare Survey for Koreans in the U.S.* instrument, which includes a Likert scale with 21 barrier questions and 40 questions capturing demographic, healthcare, health status, beliefs, and civic engagement indicators; and (4) a comparative approach, which draws lessons from other countries facing similar access to healthcare issues, as described in the Comparative Health Policy literature. *Results:* 57% of the Korean sample is self-employed, with 40% having no health insurance at all and 42% having no regular source of care. 67% achieved a Bachelor's degree or above but bivariate analyses show that those who completed their education outside of the U.S. have significantly lower levels of access to healthcare (53%). 63% had resided in the U.S. for more than 20 years and 44% do not speak English well or not at all. *Conclusions:* Structural barriers, such as cost and employment/occupation types, have a significant impact on access to healthcare. Asian American subgroups' increased propensity to be self-employed or be employed in the ethnic economy cannot be explained as a cultural phenomenon but should be understood as a pragmatic approach to integrating into the U.S. labor market. Due to their high limited English proficiency levels, Asian immigrants face challenges finding employment commensurate with their previous education and job experience. Despite the expected impact of the Affordable Care Act in reducing uninsured rates, future efforts to remedy the barriers to access to healthcare for these Asian American subgroups will require a multifaceted approach that moves towards integrating vulnerable populations, such as immigrants, into the mainstream healthcare system and establishes targeted interventions such as language assistance and comprehensive case management services.

Patcharee Komjakraphan

Assistant Professor, Prince of Songkla University, Thailand

Item Generation in the Development of a Harmony of Life Scale: A Qualitative Study

BACKGROUND: As population becomes more diverse, the increasing movement toward holistic care within a multicultural community has become essential. Holistic care addresses the physical, psychological, social and spiritual dimensions of the client. Health care providers, however, frequently overlook the spiritual dimension. There was found that factor influences quality of life is religion and spirituality. Quality of life was equated with harmony of life. In addition; spiritual distress is a disruption in the harmony of life. Measuring harmony of life is a tools used to assess and monitor the spiritual dimension. This study aims to develop a tool for assessing harmony of life in Southern Thai people.

METHODS: A qualitative study involving focus group discussions and in-depth individual interviews with people living in Southern Thailand was employed to develop a tool. The focus group discussions were transcribed verbatim and analyzed using content analysis.

RESULTS: Four different themes emerged. The first theme “balance” with the four subthemes structure, economic status, work, and family. The second theme, “peaceful”, reflects the inner self as a lack of inner conflict and it can be described as a confident and tranquil emotional state. The third theme, “congruity”, which reflects the conditions for the social interaction. The fourth themes, “congruent” refers to a state of being mentally and spiritually at peace. Thus, the initial version of the Thai Harmony of Life Scale (THLS), comprising 38 core items under four themes, was developed.

CONCLUSIONS: A set of dimensions and core items of the THLS was developed and the instrument will undergo validity and reliability tests. A valid and reliable tool is important in accurately assessing harmony of life to improve their quality of life.

Jorgen T. Lauridsen

Professor, University of Southern Denmark, Denmark

&

Terkel Christiansen

Professor, University of Southern Denmark, Denmark

Determinants of Inequalities in Health in Europe with Focus on Retirement

Earlier studies of health inequality across European countries have shown intriguing results, in particular with respect to retirement status as one of the determinants of health inequality. A priori one would expect that inequality in health and income would be associated.

Theory suggests that health deteriorates with age, in particular for low income groups. Moreover, as income declines after retirement, elderly people tend to rank lower in the relative income ranking. Consequently, retirement status, and in particular early retirement due to health problems, is expected to contribute to inequalities in income-related inequalities in health.

It is the purpose of the paper to look further into the contribution by retired Europeans to income-related inequalities in health and the development in this contribution over time. The study is based on data from the first four waves of the Survey of Health, Ageing and Retirement in Europe (SHARE), including individuals born in 1954 or earlier from 10 European countries.

Income-related inequality in health is measured using the concentration index. A decomposition of the index into its determinants allows a calculation of the contribution of each determinant's separate contribution to inequality in health.

The study is still in development. However, the preliminary results indicate that retirement status contributes substantially to income-related inequality in health across European countries, and that the variation to a certain extent can be explained by income differences rather than health differences.

Carl Leukefeld
Professor, University of Kentucky, USA

Community Partner Involvement in a Juvenile Justice Behavioral Health Service Organizational Implementation Trial

The U.S. Juvenile Justice System has a number of possible behavioral health service community linkages. However, there have only been a small number of systemic studies that examine and seek to improve these community behavioral health linkages for substance abuse and HIV services among youth. Implementation science, as an emerging area, is a way of identifying, testing and understanding effective strategies for translating treatment and prevention evidence-based approaches into community behavioral health service delivery.

The purpose of this presentation, within the context of the JJ-TRIALS implementation behavioral health trial, is to describe the diverse settings in which the study will be initiated and how partners are involved in the study design. State partners in the U.S. include juvenile justice and behavioral health services organizations in seven U.S. states (Florida, Georgia, Kentucky, Mississippi, New York, Pennsylvania, Texas) and the District of Columbia. Factors associated with selection, participation and implementing the study in 36 sites will be explored. Each site will include a juvenile justice agency and at least two community behavioral health service organizations for seven to ten implementation team members representing executive, management, supervisory, and line staff. Partner involvement is helping to design the study protocol that is both feasible for sites and meets community needs.

Study sites are defined as a U.S. county or service area, which can include multiple counties when behavioral health services are sparse. Site clusters will be used which are defined within each state to assure that each of the six research centers have an equal number of experimental and control sites to take into account broader contextual factors. Options for defining clusters include county size, juvenile justice youth population, urban/rural, or type of community supervision - probation or juvenile drug court. Sites will not be pre-selected for substance use, HIV or related behavioral health service needs so youth are included with diverse behavioral health needs. State partners have actively participated on the Study Design work group, and the protocol has been vetted through partners at meetings and steering committee conference calls.

Chumei Li

Director, Clinical Genetics Program, McMaster University Medical
Center, Canada

Clinical Genetics Core Competency Assessment in Pediatricians and Pediatric Trainees

Clinical genetics is a fast evolving area in the clinical care of patients and families with (suspected) genetic conditions. But the wait time to see a geneticist can be prolonged, often ranging from months to over 2 years. Pediatrics is one of the disciplines that requests large number of genetic consultations and actively manages patients with both known genetic conditions such as Down syndrome, Achondroplasia or 22q microdeletion, or conditions not yet diagnosed but are believed to have a genetic etiology such as disproportionate short stature or dysmorphism in conjunction with cognitive disability. Core competency in genetics is critically related to effective referral and management of these patients. There have been studies on general practitioners/family physicians' attitude toward and core competency in genetics. But similar studies are lacking for academic pediatricians and pediatric trainees. In this paper, I present data collected over the course of five years in a pediatric tertiary care center on staff pediatricians and pediatric trainees on their core competency scores in clinical genetics. The data could potentially be instructive for designing genetics educational curricula for both medical school and post-graduate medical training.

Hadi Lotfnezhad Afshar

Lecturer, Urmia University of Medical Sciences, Iran

Maryam Ahmadi

Iran University of Medical Sciences, Iran

Masoud Roudbari

Iran University of Medical Sciences, Iran

&

Farahnaz Sadoughi

Iran University of Medical Sciences, Iran

Prediction of Breast Cancer Survival through Knowledge Discovery in Databases

The collection of large volumes of medical data has offered an opportunity to develop prediction models for survival by the medical research community. Medical researchers who seek to discover and extract hidden patterns and relationships among large number of variables use knowledge discovery in databases (KDD) to predict the outcome of a disease. The extraction of pattern representing survival status of patients with breast cancer from demographic and clinical data is the main object of KDD in the health domain. The study was conducted to develop predictive models and discover relationships between certain predictor variables and survival in the context of breast cancer. This study is a Cross sectional and the required data were obtained from the Surveillance Epidemiology and End Results (SEER) breast cancer dataset. This dataset contains 657,712 records and 72 variables. These variables provide socio-demographic and cancer specific information. Each record represents a particular patient within the database. The records of patients diagnosed with breast cancer between 1999 and 2004 (22,763 female patients, mean age 59.4 years) that had been followed for 5-year period were selected and analyzed anonymously. IBM SPSS Statistics 16, Access 2003 and Excel 2003 were used in the data preparation and IBM SPSS Modeler 14.2 was used in the model design. Support Vector Machine (SVM) model outperformed other models in the prediction of breast cancer survival. Analysis showed that SVM model detected ten important predictor variables contributing mostly to prediction of breast cancer survival. Among important variables, behavior of tumor as the most important variable and stage of malignancy as the least important variable were identified. In current study, applying of the knowledge discovery method in the breast cancer dataset predicted the survival condition of breast cancer

patients with high confidence and identified the most important variables participating in breast cancer survival.

3rd Annual International Conference on Health Sciences,
1st Annual International Conference on Public Health, Forum on Health Inequality,
Symposium on Diabetes, 4-7 May 2015, Athens, Greece: Abstract Book

Anil Mandal

Courtesy Clinical Professor, Department of Medicine, University of Florida,
USA

**Diagnosis and Men-percent of Diabetes and Relationship
of d-Glucose to Preservation of Kidney Function**

Elizabeth McClintock

Assistant Professor, University of Notre Dame, USA

&

Emily Fitzgibbons Shafer

Portland State University, USA

Sibling Sex Composition, Chores, and Occupational Sex Composition

Occupational sex segregation presents a substantial, intransigent obstacle to gender equality. Despite their lower pay and lower status, women disproportionately pursue predominately-female occupations. We use data from the Children and Young Adult supplemental sample to the National Longitudinal Survey of Youth 1979 (NLSY79-YA) 1986-2010 and from the National Longitudinal Study of Adolescent Health (Add Health) 1994-2008 to examine the link between sibling sex composition, an important but understudied contributor to gendered socialization, and gendered occupational choice in adulthood. We consider not only sibling sex composition, but also in the order and timing of other-sex sibling births. In doing so, we unite the literatures on birth order and birth timing with the literature on sibling sex composition. In addition, we consider the mediating role of specific aspects of parental gender-typing, including gender inequality in responsibility for household chores, in accounting for the connection between sibling sex composition and gendered occupational choice.

Romeu Mendes

Professor, ACES Douro I - Marão e Douro Norte, Public Health Unit,
University of Trás-os-Montes e Alto Douro, CIDESD, Portugal

**Effects of a Community-Based Exercise Program on Falls
Risk in Patients with Type 2 Diabetes: *Diabetes em
Movimento*[®] Trial**

Introduction: Patients with diabetes have an increased risk of falling due to diabetes complications like autonomic dysfunction, peripheral neuropathy and retinopathy. These can lead to postural hypotension, alterations in gait, balance disorders and visual impairment. *Timed Up-and-Go Test* is an international recommended tool for screening for falls risk, and it consists of a timed performance of getting up from a chair, walking 3 m, turning around, and walking back to sit down again. This study aimed to analyze the effects of *Diabetes em Movimento*[®] a community-based supervised exercise program on *Timed Up-and-Go Test* performance in patients with type 2 diabetes.

Methods: This was a longitudinal study design. Forty-three individuals with type 2 diabetes (diagnosed at 9.95 ± 6.03 years; 21 men and 22 women; age 62.51 ± 5.92 years old; glycated hemoglobin 7.72 ± 0.84 %; body mass index 30.89 ± 5.28 kg/m²) underwent a community-based exercise program, with nine months duration, combining aerobic, resistance, agility and flexibility exercise. Group exercise sessions were held three times per week on non-consecutive days, lasting 70 minutes and were supervised by exercise professionals. *Timed Up-and-Go Test* performance was assessed before and after the exercise program implementation (pre and post-test).

Results: Exercise program adherence was 79.51 ± 10.05 %. *Timed Up-and-Go Test* performance improved 14.31% ($p < 0.001$) after exercise program application.

Conclusions: Community-based exercise programs such as *Diabetes em Movimento*[®] are effective interventions to falls prevention in type 2 diabetic patients.

Funding and Registration : *Diabetes em Movimento*[®] Trial is funded by Portuguese Foundation for Science and Technology (SFRH/BD/47733/2008) and is registered in ISRCTN registry (ISRCTN09240628).

Dickson Mkoka

Assistant Lecturer and Ph.D. Student, Muhimbili University of Health
and Allied Sciences, Tanzania

Isabel Goicolea

Researcher, Umea University, Sweden

Angwara Kiwara

Professor, Muhimbili University of Health and Allied Sciences,
Tanzania

Mughwira Mwangu

Senior Lecturer, Muhimbili University of Health and Allied Sciences,
Tanzania

&

Anna-Karin Hurtig

Associate, Umea University, Sweden

Availability of Drugs and Medical Supplies for Emergency Obstetric Care: Experience of Health Facility Managers in a Rural District of Tanzania

Background: Provision of quality emergency obstetric care relies upon the presence of skilled health attendants working in an environment where drugs and medical supplies are available when needed and in adequate quantity and of assured quality. This study aimed to describe the experience of rural health facility managers in ensuring the timely availability of drugs and medical supplies for emergency obstetric care (EmOC).

Methods: In-depth interviews were conducted with a total of 17 health facility managers: 14 from dispensaries and three from health centers. Two members of the Council Health Management Team and one member of the Council Health Service Board were also interviewed. A survey of health facilities was conducted to supplement the data. All the materials were analyzed using a qualitative thematic analysis approach.

Results: Participants reported on the unreliability of obtaining drugs and medical supplies for EmOC; this was supported by the absence of essential items observed during the facility survey. The unreliability of obtaining drugs and medical supplies was reported to result in the provision of untimely and suboptimal EmOC services. An insufficient budget for drugs from central government, lack of accountability within the supply system and a bureaucratic process of accessing the locally mobilized drug fund were reported to contribute to the current situation.

Conclusion: The unreliability of obtaining drugs and medical supplies compromises the timely provision of quality EmOC. Multiple approaches should be used to address challenges within the health system that prevent access to essential drugs and supplies for maternal health. There should be a special focus on improving the governance of the drug delivery system so that it promotes the accountability of key players, transparency in the handling of information and drug funds, and the participation of key stakeholders in decision making over the allocation of locally collected drug funds.

Gretta Mohan

Ph.D. Student, Queen's University Belfast, U.K.

&

Alberto Longo

Queen's University Belfast, U.K.

The Effect of the Neighbourhood Renewal Policy on Health and Wellbeing in Northern Ireland

This research evaluates the effectiveness of a major long term policy, Neighbourhood Renewal (NR), launched in 2003 to improve the wellbeing of and reduce inequalities among the population of Northern Ireland (NI). The analysis of this natural experiment involves econometric modelling of secondary high quality longitudinal data from the NI Household Panel Survey and Understanding Society for 2001-2012. Using Geographical Information Systems we map the answers of respondents to investigate:

(i) differences in wellbeing across NR areas before and after NR; how long does it take for NR investment to affect wellbeing of residents?

(ii) change in wellbeing between people in NR areas and two control areas: people living in the rest of NI and people in the most deprived areas in NI which did not benefit from NR;

(iv) any spillover effects to adjacent neighbourhoods

(v) which interventions were most effective, where and broader policy lessons

Wellbeing is not directly measured but proxied by responses on health conditions, self-rated mental health, poverty (food and fuel), social exclusion and perceptions of neighbourhood and inequality.

Model to be estimated:

$$W_{it} = f(X'_{it}\beta, D'_{it}\delta, N'_{it}\eta, R_{it}r, u_i, \varepsilon_{it})$$

where W_{it} is wellbeing of individual i at time t , X_{it} represents a set of socioeconomic explanatory variables affecting wellbeing including income, marital status, employment status, education etc. D is a set of dummy variables indicating whether the respondent lives in a NR area, whether the area has received investment, whether the respondent lives in a highly deprived area not receiving NR, whether the respondent moved into or out of a NR area. N_{it} is a set of variables capturing time lags: time elapsed since investment, time elapsed since the respondent moved into/out of a NR area. R_{it} is a dummy capturing whether the survey was conducted before or after the recent recession.

Lise Monneraud

Post-Doctoral Researcher, University of Bordeaux, France

Managing Chronic Illness at Work

COPD is a chronic respiratory disease very common, leading to severe chronic respiratory failure. Besides the post-smoking COPD, the risk fraction attributable to occupational causes is 15 to 19%. Despite the high frequency of occupational COPD, the issue is poorly documented.

Our aim is to better understand (and deal with) the socio-professional impact of COPD: ability to work according to sectors or workstations; impact on labor relations; impact on career.

Such an analysis provides tools for occupational medicine and social partners to assess the impact of chronic disease on professional trajectories and adapt care and career management (and law governing occupational health)

Methods: socio-anthropological analysis, extension of a French multicenter research program on occupational COPD in the general population.

The recruitment of cases of COPD organized in 6 French departments of occupational disease (1500 cases expected). The socio-anthropological approach involves about 100 subjects, with qualitative data processing. It is based on semi-structured interviews, focusing on what individuals tell about the interaction between their disease and their job.

Results: Data show that the occupational etiology is very often undervalued by patients. But individuals explain how symptoms (officially recognized as “disease” or not) impact the ability to fulfill professional obligations. Beyond the official recognition by welfare authorities and the inclusion in an administrative category (occupational disease; extended sick leave; early retirement) they show how symptoms affect professional careers.

They also give detailed new insights on how people with COPD combine chronic illness and occupation: individuals revise their professional career to adapt to progressive physical limitations; individuals – and their closest colleagues – experiment informal adjustments at work, in order to manage their disabilities or weaknesses at work and *in fine* protect their job.

Discussion: The next step of the analysis should be to confront qualitative data on patients’ perceptions and medical classification made in our collective research: this would allow to build a typology of patients according to the stage of the disease.

Angela Muir

Ph.D. Candidate, University of Exeter, U.K.

Illegitimacy, Identifiable Paternity and Infant Mortality in Eighteenth-Century Wales

Census returns and the Reports of the Commission of Enquiry into the State of Education in Wales (1847) have indicated that, in comparison with England certain parts of Wales experienced a significantly higher level of illegitimacy in the nineteenth century. Initial research published in the journal *Welsh History Review* in 2013 has demonstrated that increased illegitimacy existed in some parts of Wales at least a century and a half prior to the 'Blue Books' and that this was the result of courtship customs and marital traditions that were unique to Wales.

This paper demonstrates the results of new research into rates of illegitimacy in previously under-studied regions of eighteenth-century Wales, particularly by examining identifiable paternity as evidence of acceptable conjugal unions. The hypothesis that there is a correlation between identifiable paternity resulting from more acceptable forms of non-marital sexual unions and infant mortality rates of illegitimate children is also tested.

Jeanne Ngogang

Professor, University of Yaounde I, Cameroon

Bruno Mukette

Ph.D. Student, University of Yaounde I, Cameroon

Anatole Constant Pieme

Lecturer, University of Yaounde I, Cameroon

Proper Cabral Biapa

Lecturer, University of Yaounde I, Cameroon

Vicky Jocelyne Ama Moor

Lecturer, University of Yaounde I, Cameroon

Pauline Nanfack

Ph.D. Student, University of Yaounde I, Cameroon

&

Marcel Azabji

Lecturer, University of Yaounde I, Cameroon

Evaluation of the Hypoglycaemic, Hypolipidemic and Antioxidant, Properties of a Cameroonian Polyherbal Formulation on Diabetic Rats

Diabetes mellitus (DM) is a group of metabolic diseases characterized by chronic hyperglycemia resulting from defects in insulin metabolism. This hyperglycaemia generates dyslipidemia and the production of reactive oxygen species (ROS), which can induce many complications in diabetes mellitus. The aim of this study was to investigate the hypoglycaemic, hypolipidemic and antioxidant properties of the mixture of extract from *Spilanthes africana* DC, *Portulaca oleracea* L. and *Sida rhombifolia* L. (1:1:1) on streptozotocin induced diabetic rats. We gave *per os* and during 21 days to five different groups of five rats each different doses of the mixture (50, 100, 200 mg/kg of body weight), normal (non diabetic) and diabetic control groups received distilled water. Parameters such as glycemia, lipid profile, total antioxidant status (TAOS), total protein, malondialdehyde (MDA), glutathione, as well as aspartate amino transferase (ASAT), alanine amino transferase (ALAT) and creatinin have been measured using standard recommended methods. The extract mixture significantly ($p < 0,05$) decreased in the dose dependent manner the levels of glycaemia, total and LDL cholesterol, triglycerides, MDA, ASAT, ALAT, creatinin of the treated groups compared to the diabetic control. An increase of the concentration of HDL cholesterol, total protein, glutathione and TAOS was observed in the treated groups. The mixture of the extracts had a scavenging effect on DPPH and OH radicals. In

conclusion, these results suggest that this mixture has hypoglycemic, antioxidant and hypolipidemic properties and can be used for the management of diabetes mellitus.

Neha Paharia

Ph.D. Graduate, SNT Women's University, India

&

Kasturi Sen Ray

Retired Professor, SNT Women's University, India

Impact of Specific Processing of Rice on Postprandial Glycemic and Insulinemic Responses in Individuals with Type 2 Diabetes Mellitus

Background: The present study aimed to understand the impact of food processing on the postprandial glycemic and insulinemic response in individuals with type 2 diabetes, using Glycemic Index_{food} (GI_{food}). Postprandial impact of test food is compared on equi quantity basis with standard food bread giving Glycemic Bread Equivalents (GBE).

Materials and Method: Blood samples of enrolled type 2 diabetic subjects without any other clinical complication and paired clinically healthy adults were collected at fasting, 30, 60, 90 and 120 min post consumption of selected quantity of standard (white bread) or test food (Boiled Rice [BR] and Rice Puff [RP]) on different occasions and their blood glucose and insulin was recorded. The incremental area under the curve (IAUC), GI_{food} and Insulinemic Index_{food} value were calculated. The results are expressed in Mean \pm SE and statistical analysis was performed using students paired *t* test.

Results: In the diabetic group, peak glycemic response of BR was significantly lower than both RP ($p < 0.005$) and white bread ($p < 0.05$). Similarly the glycemic IAUC for BR was also significantly lower than both RP ($p = 0.017$) and bread ($p = 0.012$). The insulinemic response (both peak response and IAUC) for BR was seen to be lower than RP and bread but was statistically insignificant. This could be attributed to the diminished insulin status observed in the diabetic group. In the normal group, no significant differences were observed between the glycemic responses of BR and RP, however, both peak and IAUC insulin response was significantly lower for BR as compared to RP ($p = 0.05$).

Conclusion: The study clearly shows that selected processing of rice increases its glycemic and insulinemic impact. Apart from the food composition, other factors such as structure or physical form of food also contribute in the alteration of postprandial responses. Insufficient insulin status coupled with consumption of hyperglycemic foods could be detrimental in case of people with diabetes.

Carlos Pereira

Professor, Polytechnic Institute of Viseu, Portugal

Nelio Veiga

Ph.D. Student, Polytechnic Institute of Viseu, Portugal

Odete Amaral

Professor, Polytechnic Institute of Viseu, Portugal

Joana Pereira

Polytechnic Institute of Viseu, Portugal

&

Ilda Bastos

Polytechnic Institute of Viseu, Portugal

Prevalence of *Helicobacter Pylori* in a Portuguese Sample of Adolescents

Introduction: Studies confirm that *Helicobacter pylori* (*H. pylori*) infection may be a predisposing factor for gastric pathology later in life. This study consisted in determining the prevalence of *H. pylori* present in the stomach in a sample of Portuguese adolescents and determining the association between *H. pylori* infection and socio-demographic variables and functional dyspepsia.

Participants and methods: A sample of 437 adolescents aged 12 to 18 years old, attending a public school in Sátão, Portugal, was enrolled in this cross-sectional study. A self-administered questionnaire focusing socio-demographic variables, social and daily habits and gastric-related pathologies was filled out by all participants in this study. The self-reported form for children and adolescents of the Rome III Diagnostic Questionnaire was also applied in order to assess functional dyspepsia. The adolescents were screened for *H. pylori* infection using the ¹³C-urease breath test that consists in the exhalation of carbon dioxide in samples before and after swallowing urea labeled with non-radioactive carbon-13. Prevalence was expressed in proportions and compared by the chi-square test. Crude odds ratio (OR) with 95% confidence intervals (CI) were used.

Results: The prevalence of gastric *H. pylori* was 35.9%. The presence of gastric *H. pylori* was found to be associated with age (>15years, OR=1.64, 95%CI=1.08-2.52), residence area (urban OR=1.48, 95%CI=1.03-2.29) and parents' professional situation (unemployed OR=1.22, 95%CI=1.02-1.23). Functional dyspepsia was present in 22.4% of the sample and was associated with age (\leq 15years OR=2.25, 95%CI=1.17-4.33), residential area (rural OR=1.98, 95%CI=1.05-4.35) and family history of gastric disease (OR=3.39, 95%CI=1.17-9.87).

Conclusions: We found a high prevalence of *H. pylori* infection and functional dyspepsia among adolescents, suggesting that gastric pathology continues to be an important public health issue. *H. pylori* infection was found to be associated with socio-demographic variables such as age, residence area and socioeconomic status.

Fiona Phipps

Senior Lecturer, Staffordshire University, U.K.

Peer Support for Mothers with Postnatal Depression

Postnatal depression (PND) is a global problem and an important public health issue. It is estimated that approximately 15% of women experience depression during the first postnatal year but there are problems in recognition because its clinical assessment can be complex. There can be serious consequences for the mother, her child and the extended family and a risk of suicide (the leading cause of maternal death in England and Wales) and infanticide in some severely depressed mothers.

Within primary care, psychological interventions can be as clinically effective in the management of depression as routine care from a general practitioner or anti-depressants in the short term – and may be more cost effective.

The aim of this exploratory study is to identify whether the support, on a one to one basis, from a Peer Support Worker (PSW) would assist in the reduction of PND in new mothers. The PSW visited the mother in their home environment, or a location of their choice, for a period of six weeks on a once weekly basis (intervention group). This was then compared to a number of mothers who received support from their family Health Visitor (HV) alone (control group). Data collected was both qualitative and quantitative. The PSW's and the mothers from both the control group and the intervention group were asked to maintain a log book reflecting upon their feelings and thoughts after each visit (either from their PSW or their HV). Individual and group supervisory sessions were also offered by the lead researcher to both the mothers within the intervention group, and the control group, in addition to the PSW's. Each participant was interviewed on a one to one basis when their infant was six months old.

Quantitative data was collated in the form of an Edinburgh Postnatal Depression Score (EPDS) – an assessment tool which is routinely used to identify mothers at risk or suffering from postnatal depression. The EPDS score was recorded prior to the support commencing by either a PSW or the Health Visitor, after completion of all six visits, and when the infant was six months old.

Qualitative and quantitative findings from this study suggest that the input from a PSW does assist in the reduction of PND in new mothers. However, this was a small scale study over a relatively short period of time. Larger, more longitudinal studies are certainly

required. The importance of the study presented here lies in its usefulness in shaping research to investigate and explore further whether there are indeed beneficial factors to post-natally depressed mothers who receive one to one support from a PSW. The positive results from this study can, potentially, have a huge impact within practice and, most importantly, upon the lives of those affected by postnatal depression.

Anya Pimentel Gomes Fernandes Vieira Meyer

Researcher, Fundacao Oswaldo Cruz - FIOCRUZ, Brazil

Themis Xavier de Albuquerque Pinheiro

Professor, Federal University of Rio Grande do Norte, Brazil

&

Paulo de Medeiros Rocha

Professor, Federal University of Rio Grande do Norte, Brazil

National Program of Health Services Evaluation: Methodological Innovations and Challenges in Brazil

Since 1988, Brazil has a universal and public health system - the Unified Health System (SUS). The need for its improvement has made the Brazilian government to invest, in the last ten years, in a monitoring and evaluation policy for SUS - providing innovative actions and initiatives that consider the management complexity of systems and services, related to its scope, volume of services and procedures, as well as characteristics of legal provisions concerning organizations. This policy is constituted by a set of evaluation programs, relatively independent but related and complementary concatenated together, to form a complex, which aims to produce, through evaluations, a set of necessary information and strategy for the development and qualification SUS, as to whether its principles and guidelines. This study aims to present the National Program of Health Services Evaluation (PNASS) of the Brazilian Ministry of Health. It is to be developed in 2015 throughout the national territory, and aims to assess the hospital, rehabilitation and outpatient health services. The program intends to function as inducing mechanism of quality of health services, with participation of users (satisfaction survey). The large number of units to be assessed, the size of the Brazilian territory, as well as regional specificities and budgetary constraints meant that different methodologies were used in the organization of this study. The project was designed and will be implemented jointly by the Ministry of Health (MOH) and a consortium of five institutions - the University of Brasilia, Federal University of Minas Gerais, Federal University of Rio Grande do Norte, Federal University of Rio Grande do Sul, and University Pelotas - which present experience in health national research recognized by the MOH. A total of 3,170 establishments of the National Health System was selected: 1,800 hospital units (with more than 50 beds, except psychiatric hospitals), 1,351 outpatient units and 119 Recovery Units. The methodology defined by MS researchers and technicians provide an evaluation on structure, processes and results dimensions, operationalized through the instrument "Items verification

script" distributed in 05 blocks (grouping criteria) - Organizational Management, Technical Support and Logistics for production Care, Care Management, Services and Specific Units, Oncology Care - containing a total of 180 items, as well as a tool for users satisfaction survey. The data collection instruments were validated nationally through successive meetings with the protagonists (expertise in the area) involved, as well as with a pilot study developed by the Federal University of Minas Gerais. Information technology its being used to validate the data collection and as a management tool during the research. Assessment instruments are being deployed and implemented through electronic programming (tablet). The field logistics includes maps and routes as well as daily reports. Appraisers (evaluators/data collectors) will be selected and properly trained in accordance with the national standard. The initiative aims to develop internal synergy with other assessment programs, which seek improvements in the management capacity of the National Health System.

Doina Popov

Head of Pathophysiology and Pharmacology Department, Institute of Cellular Biology and Pathology "N. Simionescu" of the Romanian Academy, Romania

Organelles Stress and Their Crosstalk within Diabetic Myocardium

Diabetes-associated cardiovascular dysfunction is characterized by homeostasis perturbation induced by systemic stressors, such as hyperglycemia, excess of ROS/RNS, shear-stress, and inflammatory environment. The recent data highlight the aggravating effect of local, organelles-related stress, manifest in mitochondria, endoplasmic reticulum (ER), lysosomes, proteasomes, inflammasomes. The occurrence of local stress might allow its alleviation inside the cell, at organelles level, a novel strategy potentially more efficient compared to current systemic therapeutic approaches. The aim of this disclosure is to link morphological evidence on organelles stress in diabetic coronary endothelium and cardiomyocytes (CMs) to the newly identified molecules/mechanisms beyond it. The issues examined are: (i) the oxidative stress linked to mitochondria dysfunction, as illustrated by the dynamic shape changes ensuing fusion or fission, generating elongated mitochondria or smaller size individual organelles, respectively; the opposing effects of fusion proteins (Mfn1, Mfn2, OPA-1) and fission proteins (Drp1, Fis1) are highlighted; (ii) the mitochondrial turnover, compromised autophagy (mitophagy), and inadequate mitochondrial biogenesis; the PINK1 recruitment of Parkin is underlined as key event; (iii) the molecular dialogue between mitochondria and cell nucleus, the lipid transport at mitochondrial membrane contact sites with sarcoplasmic reticulum (SR)/ER, lipid droplets (in myocardial steatosis), and peroxysomes; (iv) the SR/ER stress activation (related to fibrosis) and the functional crosstalk between fibroblasts and inflammatory cells within diabetic myocardium (by mechanisms involving released cytokines and growth factors). At the horizon, targeting mitochondrial dynamics mediators, deciphering the defects in mitochondrial cell signaling control, understanding mitochondria retrograde signaling, and manipulation of SR/ER stress-associated lipid droplets formation may conduct to novel drugs aimed to preserve CMs viability and to alleviate diabetes-induced cardiac damage.

Louise Price

Senior Lecturer, Coventry University, U.K.

Values Based Simulation

Introduction: The publication of *Compassion in Practice* (DH: 2012) and *Every Contact Counts* (DH: 2011) has led to a major rethink in the way services are commissioned and delivered. Nursing education needs to imbed patient safety and dignity as a top priority in addition to challenging poor care and loss of public confidence (Willis: 2012, Francis: 2013).

Gaining experience through simulation across a range of care settings is aimed at building confidence and knowledge (Benner: 2001). The demand for safe and quality services within the healthcare system has put greater demands on education settings to deliver students who are competent nurses. There is an increasing demand for nursing students to have gained expertise and confidence through experience of lifelike simulations; in order to prepare students for real life situations in clinical areas (Aldrich: 2005).

Purpose: The purpose of simulation is to enhance the students understanding of the role of a registered nurse, in a safe environment without danger or causing any harm. Support through simulation to achieve the standards required in ensuring nurses are fit for practice on completion and a greater link between professional practice and theory (Galloway 2009).

Methods: Simulation is essential for progressing to the level of competence required in nursing today. Simulation can be used incrementally to build skills over the three year period to ensure the maximum benefit to the students as part of the Coventry University curriculum.

Results: Simulation has enhanced nursing skills development and provides students with clinical competence in a safe, cost effective and efficient way This has been evidenced through quantitative and qualitative data analysis.

Conclusions: Simulation provides opportunities for immersive, interactive, and reflective experiences to improve health care professional's clinical expertise and practice. These experiences facilitate the development of enhanced critical thinking, problem-solving, and communication skills without risks to patients.

Fatemeh Rabiee

Professor, Birmingham City University, U.K.

Redressing Health Inequality: The Impact of our Research Findings on Promoting Health and Wellbeing

Introduction: There is growing evidence about the role of social prescription on health and wellbeing (Bungay & Clift, 2010; Langford et al., 2013 and Kimberlee, 2015). Social prescription programme can act as a primary or secondary intervention for a range of public health issues including obesity, mental health, parenting skills, life skills and address inequality in health and wealth. Not enough information is available about the process and challenges of translating research findings into policy and practice.

Case study: Physical inactivity as one of the risk factor leading to obesity and other non-communicable diseases is well recognised worldwide and Birmingham is no exception. An innovative social prescription pilot “Gym for Free” Scheme was jointly funded between one of the Primary Health Care Trust and City Council leisure centres in one of the deprived locality in Birmingham for six months in 2008, with a view to find out if cost is a determinant factor on the uptake of the leisure facilities.

Results: A rapid appraisal of the pilot scheme explored its short-term effectiveness in relation to access, utilization, perceived benefits and sustainability (Rabiee, et al, 2015). Findings highlighted the Scheme has increased the uptake of exercise particularly for women and those from Pakistani and Bangladeshi background within this economically deprived inner city area. A marked difference was also identified in the frequency of the use of leisure facilities ($p < 0.05$).

Impact: The “Gym for Free” Scheme as a social policy innovation programme taken a step towards addressing health inequality by increasing access to and widening participation in exercise with multiple physical, mental and emotional benefits.

Based on dissemination of the findings of this pilot Scheme “Gym for Free” won numerous national awards for its policy innovation and short term impact on health and wellbeing. Post research activities through lobbying, advocacy and working with various stakeholders led this pilot Scheme to become a permanent feature of social prescription policy “Be Active”. The programme is now available to the whole population of Birmingham free of charge.

Conclusion & lessons learned: Time for provision of post research activities should be built as part of applied research funding grants.

Skills such as lobbying, advocacy and campaigning to facilitate translating the research findings into policy and practice should form part of public health research training programme.

Panagiota Rempelou

Specialist of Internal Medicine, University of Padua, Italy

V. Tikhonoff

Italian Centre for Clinical and Experimental Hypnosis, Turin, Italy

M. Giacomello

Institute of Anesthesia, Hospital of Padua, Italy

F. Guidotti

Italian Centre for Clinical and Experimental Hypnosis, Turin, Italy

A. M. Lapenta

Italian Centre for Clinical and Experimental Hypnosis, Turin, Italy

A. M. Rossi

Italian Centre for Clinical and Experimental Hypnosis, Turin, Italy

G. Regaldo

Italian Centre for Clinical and Experimental Hypnosis, Turin, Italy

S. Crociani

Italian Centre for Clinical and Experimental Hypnosis, Turin, Italy

G. Boschetti

Italian Centre for Clinical and Experimental Hypnosis, Turin, Italy

N. Giordano

Italian Centre for Clinical and Experimental Hypnosis, Turin, Italy

E. Facco

University of Pradua, Italy

P. Palatini

Italian Centre for Clinical and Experimental Hypnosis, Turin, Italy

&

E. Casiglia

Italian Centre for Clinical and Experimental Hypnosis, Turin, Italy

**Preventing Pain and its Hemodynamics Consequences
through Hypnosis: Hypnotic Focused Analgesia vs.
Hypnotic General Anesthesia**

Objective: To establish whether Hypnotic focused analgesia (HFA) corresponding to local anesthesia and hypnotic general anesthesia (HGA) corresponding to spontaneous-breathing general anesthesia are able to prevent the central and peripheral resistance rise induced by painful stimuli on the median nerve (PSMN).

Design and method: Hypnotic induction was obtained in 5 normal volunteers. Hand HFA was suggested as described in Casiglia et al, Hypnosis prevents the cardiovascular response to cold pressor test, Am J Clin Hypn 2007;49:255-66. HGA was obtained in the same subjects suggesting total-body analgesia, narcosis, muscular immobility and

amnesia like. PSMN was produced through a device giving direct current (DC) electric discharges (2 stimuli/second). HGA differed from HFA in that, analgesia was extended to total body, hypnotic sleep reproducing surgical narcosis was induced, paralysis was suggested but for respiratory muscles and subjects did not know where the painful stimuli would be administered. Subjective pain (SP) was recorded with a 0-10 visual scale. Maximum tolerable DC intensity indicated objective pain tolerance (OPT): Blood pressure, forearm flow and cardiac output were monitored, and central and peripheral resistance were calculated in normal consciousness, in HFA and in HGA in order to measure the adrenergic response triggered by pain stimuli (ARPS).

Results: SP: in comparison to pre-hypnotic conditions, maximum subjective pain decreased in average by 84% in HFA and 111% in HGA. OPT: at the maximum PSMN, pain tolerance increased by 30% in HFA and by 64% in HGA. Haemodynamics: in basal conditions, the PSMN inducing maximum tolerable pain produced 46% increase of central resistance and 46% increase of peripheral resistance, while during HFA and during HGA no increase of resistance was observed.

Conclusions: HFA significantly reduces subjective pain perception, an effect that is mirrored by objective pain tolerance. HGA is even more efficient than HFA in this respect. What is more important, both HFA and HGA significantly reduce the ARPS, so living organ protection against pain. Consequently, both HFA and HGA are not simple subjective consequences of dissociation, but really blocked at a certain level of central nervous system.

Maini Sabait

Ph.D. Candidate, Universiti Sains Malaysia, Malaysia

Mohamed Rusli Abdullah

Professor, Universiti Sains Malaysia, Malaysia

Mohd Zahiruddin Wan Mohammadd

Associate Professor, Universiti Sains Malaysia, Malaysia

&

Julia Omar

Head, Universiti Sains Malaysia, Malaysia

Importance of Latent Tuberculosis Infection among Legal Immigrants in Sabah

Background: Immigration has been implicated as one of the contributing factor in the rise of Tuberculosis (TB) cases in Sabah. High prevalence of latent tuberculosis infection (LTBI) among the immigrants was thought to have increasing importance. However, latent tuberculosis evaluation is not well established in this setting.

Objective: This study was intended to assess the burden of LTBI using Tuberculin Skin Test (TST) as well as Interferon Gamma Release Assay (IGRA) using Quantiferon Gold in Tube (QFT-GIT) in field screening among legal immigrant plantation workers in Sabah.

Methods: A combined retrospective and prospective cohort study was designed to recruit only legal immigrant workers aged 18 years and above, consented and available at study sites during the study period. Workers with previous history of TB or currently on TB treatment was excluded from participation in the prospective cohort. Symptom based questionnaire was administered while chest radiograph and sputum samples were collected for those with TB symptoms. Participants were also tested by TST and QFT-GIT.

Findings: For the purpose of answering this objective, only the prospective part of the study was analysed. A total of 482 participants were involved in the prospective study. TST result were positive in 191 (39.6%) of the participants. Three hundred sixty three participants completed both TST and QFT testing, where 101(21.6%) were positive for QFT, 259 (55.3%) were negative, and 3 (0.6%) were indeterminate. BCG scar was present in only 27.2% of the participants.

Conclusions: High proportion of legal immigrants were noted having LTBI using TST. Problem with false positive result associated with BCG vaccination were minimised due to low BCG vaccination among the immigrants. By using IGRA, only half of the participants were classified as having LTBI.

Abdalla Saeed Ali

Consultant, Faculty Member, King Fahad Medical City, Saudi Arabia

Gender Differences in Satisfaction with Primary Health Care Centers in Riyadh City, Kingdom of Saudi Arabia

Objectives: The assessment of consumers' satisfaction with Primary Care the services and gender differences in satisfaction.

Subjects and Methods: Systematically selected Saudi adults visiting 15 randomly selected health centres in Riyadh during May 2012 completed a self administered pilot tested questionnaire which included socio-demographic, economic and geographical characteristics, overall satisfaction with the different services and facilities rated on a Likert type scale of 1 - 5 points and gender differences in satisfaction.

Results and discussion: The overall average satisfaction score was about 70% (3.48 points out of 5) significantly higher among females. There were only few significant gender differences in satisfaction. Females were more satisfied than males with vaccination services while males were more satisfied with some physician services. Subjects with elementary education, visiting centres in the Centre and North zones and have a file in the Health Centre were more satisfied.

Conclusion: The study revealed few gender differences in overall and itemized satisfaction according to service provided. Many physician attributes showed high satisfaction to both genders while health education and dental services were less satisfactory for both genders.

Kasturi Sen Ray

Retired Professor, SNDT Women's University, India

&

Neha Pahlaria

Ph.D. Graduate, SNDT Women's University, India

Relative Glycemic and Insulinemic Response of Staple Indian Foods in Type 2 Diabetic Patients

Background: Dietary management of diabetes focuses to maintain blood sugar levels close to normal. Carbohydrate (CHO) based, staple Indian food, rice is classified as high GI product, commonly restricted for diabetic person and Indian chapatti made from whole wheat flour is favorably consumed for its low GI Value. GI compares foods on equi-carbohydrate basis. As we eat food, the concept of glycemic index food (GI_{food}), based on equi-quantity consumption of whole food was used to compare rice and chapatti in diabetic and normal individuals to facilitate the selection of food.

Materials and Method: Blood samples were collected from enrolled type 2 diabetic subjects without co-morbidity and paired healthy adults at fasting, 30, 60, 90 and 120 min., post consumption of 50G of standard or test food on different occasions. Blood glucose and insulin was assessed. Starch and moisture content of the food were analyzed.

Results: Cooked rice was found to have about 1.7 times and 1.9 times lower starch content as compared to white bread and chapatti respectively. Similarly moisture as energy diluents was highest for rice followed by bread and chapatti.

In diabetic individuals, peak response for rice was achieved within 30m followed by gradual decline towards baseline. But equiquantity response of Chapatti and bread, are seen to peak at 60m and continue to stay elevated even at the end of 120 min. The glycemic IAUC for rice, is seen to be significantly ($p < 0.05$) lower than that of bread and Chapatti.

In normal individuals, peak insulin response of chapatti was significantly lower than bread ($p = 0.05$) and 49% lower for rice. In diabetic individuals insulinemic IAUC of rice was significantly lower than bread and for chapatti, it was 44% higher than rice but statistically insignificant.

Conclusion: Rice has low glycemic and insulinemic impact as compared to chapatti and is better suited for diabetic individuals who have a compromised insulin status.

Gul Shah

Professor, Saint Louis University, USA

Topiramate, by Inhibiting Mitochondrial Carbonic Anhydrase VA, Protects High Glucose-Induced Brain Pericyte Apoptosis: Implications for Cerebral Microvascular Disease in Diabetes

Diabetes mellitus causes pericyte depletion from the microvasculature of the brain which leads to the disruption of the blood-brain barrier (BBB). The compromised BBB results in exposure of the brain to circulating substances, resulting in neurotoxicity and neuronal cell death.

Hyperglycemia-induced decline in pericyte numbers in the mouse brain and high glucose-induced pericyte loss by apoptosis in cell culture are caused by oxidative stress, triggered by excess ROS (*reactive oxygen species*) produced during enhanced respiration (*mitochondrial oxidative metabolism of glucose*). The rate of respiration and thus the ROS production is regulated by mitochondrial carbonic anhydrases (CA) VA and VB, the two isoforms expressed in the mitochondria. In vivo, inhibition of both isoforms with topiramate protects mouse brain from diabetic damage by reducing the oxidative stress and restoring the pericyte numbers. In culture, inhibition of both CAs with topiramate reduces high glucose-induced ROS, oxidative stress, and pericyte apoptosis.

The individual roles of CAVA and CAVB in pericyte physiology have not been studied. Identification of a specific isoform will help develop drugs against this particular target. These drugs will have fewer side effects compared to topiramate, a broad spectrum inhibitor of CA. Therefore, this study was designed to investigate the role of CAVA in high glucose-induced pericyte apoptosis consequent to excess intracellular ROS. To accomplish this goal, we engineered a CAVA overexpressing brain pericyte cell line. These cells were exposed to high glucose and analyzed for the changes in ROS and apoptosis. Overexpression of CAVA significantly increased ROS and pericyte apoptosis in response to high glucose. Topiramate treatment prevented both the high glucose-induced ROS and apoptosis.

These results demonstrate, for the first time, that CAVA plays a significant role in brain pericyte physiology and provides a novel and specific therapeutic target to protect the brain from diabetic damage.

Pragya Sharma

Associate Professor, Maulana Azad Medical College, India

Paras Agarwal

Clinical Research Coordinator, Translational Health Science and
Technology Institute, Ministry of Science and Technology, India

Tarang Preet Kaur

Undergraduate Student, Maulana Azad Medical College, India

&

Gopal Krishna Ingle

Director, Professor, Maulana Azad Medical College, India

**Anthropometric Indices among Apparently Healthy
Adolescents with Family History of Hypertension**

Family history represents the integration of shared genomic and environmental risk factors. Thus the anthropometric measures and their derived indices can be used as the risk factors for the probability of occurrence of non communicable diseases in individuals with a positive family history in the first degree relative. Thus tracking the family history along with the anthropometric indices and their derived indices right from adolescence seems to be a cost effective method for early initiation of interventions for primary prevention.

Objectives:

1. To find out the anthropometric measures and their derived indices in apparently healthy adolescents having parental history of hypertension.
2. To compare the anthropometric indices in adolescents with a family history of hypertension to those who do not have any such family history.

Methodology:

Type of Study: Cross sectional analytic.

Study Subjects: Study was carried out among school and under graduate (MBBS) medical students. 200 apparently healthy adolescent students of both sexes of age group between 15-19 years were chosen.

Study Duration: 6 months

Method of Data Collection: The present study was conducted among 200 apparently healthy students selected from classes IX-XII of a Government school and first year of medical school. The subjects were selected by simple random sampling till the desired sample size was achieved. The sampling was done in a manner that 100 subjects were chosen with a family history of Hypertension i.e. either of the Parents or Grandparents with diagnosed Hypertension and 100 age and sex

matched subjects with no such family history were chosen to form the control group.

The data was collected on participants' identification details, personal (smoking, alcohol and diet intake habits) and family history of hypertension. Blood Pressure recording was done on all the subjects to screen out pre-hypertensives and hypertensive as per the JNC VII. Complete general physical examination was performed and basic anthropometric measurements i.e Height (in cms), Weight (in kgs), Waist and Hip Circumference (in cms) and Triceps Skin Fold thickness (in cms) were done in single contact. Body Mass Index (BMI) and Waist Hip Ratio (WHR) were derived indices calculated for analysis and interpretation. All the measurements were taken strictly following procedures as per guidelines by Centre for Disease Control, NHANES.

Exclusion Criteria: Students who were known hypertensive at the time of the study and / or were taking anti-hypertensive medications were excluded from the study.

Ethical Issues: The study was approved by the Institutional Ethical Committee. The subjects were informed about the study in details and their written consent was taken for participation in the study.

Statistical Analysis: The data was analyzed by SPSS version 18.

Results: The values of mean difference in the Waist Circumference, Body Mass Index (BMI), Waist Hip Ratio (WHR) were found to be 3.220, 1.85, 0.027 respectively and were found to be statistically significant.

Conclusions: The various basic and derived anthropometric indices showed changes in healthy adolescent offspring of the parents with history of hypertension.

Nikolajs S. Sjakste

Leading Researcher, Latvian Institute of Organic Synthesis, Latvia

Jelizaveta Sokolovska

Researcher, Latvian Institute of Organic Synthesis, Latvia

&

Evita Rostoka

Researcher, Latvian Institute of Organic Synthesis, Latvia

New 1, 4-Dihydropyridines Down-Regulate Nitric Oxide in Animals with Experimental Diabetes Mellitus and Protect DNA against Peroxynitrite Action

Pathogenic actions of nitric oxide (NO) are responsible to a large extent for development of complications of *diabetes mellitus* (DM). Search for compounds regulating NO production in DM patients is thus important for the development of pharmacological drugs and 1,4-dihydropyridines (1,4-DHPs) are prospective compounds from this point of view. The goal of the present work was to study the *in vivo* effects of new DHPs on NO and reactive nitrogen and oxygen species production in a streptozotocin-induced model of DM in rats and to study ability of the compounds to protect DNA against damage by peroxynitrite.

Production of NO was monitored by means of EPR spectroscopy of the paramagnetic Fe-(DETC)₂-NO complex. Transcription intensity was monitored by means of the real time RT-PCR and expression of proteins by immunohistochemistry. Finally, *in vitro* experiments were performed to investigate the effects of the studied DHPs on xanthine oxidase (XO) and NO-synthases (NOS) at the messenger and protein levels, and on the reactivity of peroxynitrite with plasmid and HeLa cell DNA.

Development of the diabetes was characterized by an increase of NO production in the liver, kidneys, blood and muscles. By contrast, NO production was reduced in adipose tissue of STZ-treated animals. Cerebrocrast treatment was followed by normalization of NO production in the liver, kidneys and blood. Another DHP, etaftorone, administered in similar dose was effective in kidneys, blood and muscles. Fenoftrone also decreased NO production in the liver, kidneys, blood and muscles of diabetic animals. Furthermore, inhibitors of NOS and an inhibitor of XO decreased NO production in kidneys of diabetic animals. Finally, treatment with etaftorone decreased expression of inducible NOS and XO in kidneys whereas expression of endothelial NOS was increased. The studied DHPs did not significantly

inhibit the activities of NOSs and XO but affected the reactivity of peroxynitrite with DNA.

The work was supported the project of the European Social Foundation 2013/0043/1DP/1.1.1.2.0/13/APIA/VIAA/002.

Tatjana Sjakste

Leading Researcher, University of Latvia, Latvia

Kristine Osina

Researcher, University of Latvia, Latvia

&

Evita Rostoka

Researcher, Latvian Institute of Organic Synthesis, Latvia

**Water Soluble 1, 4-Dihydropyridines Modify PARP1,
eNOS and iNOS gene Expression in Healthy Animals
and in Streptozotocin-Induced Model of *Diabetes
Mellitus***

Development of complications of *diabetes mellitus* (DM) is a complex multi-stage process, dependent of many factors including modification of nitric oxide (NO) production and impaired DNA repair. Search for compounds regulating these processes is thus important for the development of pharmacological drugs. The goal of the present work was to study the *in vivo* effects of a 1,4-dihydropyridine AV-153, known as antomutagene and DNA-binder and some other water-soluble DHPs on expression in kidneys of several genes involved in nitric oxide metabolism and DNA repair in a streptozotocin-induced model of DM in rats.

AV-153 (0.5 mg/kg) increased expression of the poly(ADP)ribose polymerase 1(PARP1) gene in kidneys of both intact and diabetic animals. Etcabatone given either in low (0.05 mg/kg) or high (0.5 mg/kg) increase the gene expression in intact animals only. Metcarbatone given in low dose produced a similar effect, however in a high dose it enhanced the gene expression also in diabetic rats. Glutapyrone modified the gene expression in both control and experimental animals only in the high dose. A novel compound J-9-125 increased PARP1 gene expression in normal kidneys, and both in normal and diabetic kidneys in high dose. Expression of the endothelial NO synthase gene (eNOS) was modified by AV-153, increasing the expression in diabetic kidneys, similar effect was produced by etcabatone in both doses. Metcarbatone in low dose decreased the gene expression in the STZ-treated rats. Glutapyrone in the low dose decreases the gene expression in normal rats, but J-9-125 - in diabetic kidneys. AV-153 and etcabatone, glutapyrone and J-9-125 did not produce any significant effects on inducible NO synthase (iNOS) expression, metcarbatone drastically increased it in diabetic animals.

Taken together our data suggest that PARP1 up-regulation is sooner a common feature of water-soluble DHPs, effect n eNOS expression is structure-dependent, only metacarbatone is able to decrease iNOS activity.

The work was supported the project of the European Social Foundation 2013/0043/1DP/1.1.1.2.0/13/APIA/VIAA/002.

Irving H. Smith

Assistant Professor, Coppin State University, USA

Cruel Poverty: An Examination of Health Disparities in Honduras

Only days after health educators and health researchers from Morgan State University and Coppin State University, two Historically Black Colleges/Universities in Baltimore, Maryland, returned to the United States from a health disparities fact finding mission to Honduras, the United States experienced one of the largest surges of unaccompanied “alien” children from Honduras and Central America crossing its borders in years. Violence, safety, family reunification, jobs and income, and overcrowded living conditions in addition to nutrition, sanitation, and other factors all contribute to health in Honduras. According to Zonta International, the maternal mortality rate in Honduras is 110 per 100,000 and the infant mortality rate is 25 per 100,000.

Rennet and Koop (2009) along with Babamoto, Camilleri, Karlan, Catalasan, and Morisky (2009) suggest the utilization of health educators for such topics as health education, safety, nutrition, sanitation, and physical activity is extremely important. Extreme poverty was observed and researched, not just in the extremely rural and mountainous areas, but also in urban areas. According to proyectormirador.org, 65% of all Hondurans live in poverty while more than half (54%) in the rural areas live in extreme poverty. Families that cannot afford to purchase bottled water are left to drink, bathe, and cook with polluted water. Many of the observed and researched homes lacked proper toilets or other basic sanitation. Even in the observed and researched health clinics, restroom sanitation was extremely poor.

All observed and researched health clinics were supervised by nurses with occasional visits from a physician. According to the World Health Organization (2010), there are only about six physicians for every 10,000 persons in Honduras. According to ruralpovertyportal.org, only 6% of Honduras’ 2009 gross domestic product was spent on healthcare. Eighty-three percent of Hondurans lacked health insurance in 2007 while another 30% lacked healthcare (Pearson, Stevens, Sanogo and Bearman, 2012).

Hui Song
Professor, Ningxia Medical University, China

Serum Levels of HSP70 and TNF-A and Their Interaction Effects on Metabolic Syndrome in a Chinese Moslem and Han Population

Background: At present, no study assessing the effects of serum HSP70 and TNF-a levels and their interaction on metabolic syndrome (MS) in Moslem and Han people in Ningxia, China has been reported. This study was designed to explore the potential associations between serum levels of HSP70 and TNF-a and their interaction and the risk of MS.

Methods: Using the method of the case-control study, and according to the diagnostic criteria and exclusion criteria of MS and control, we selected randomly 622 patients with MS and 600 healthy people. MS was defined according to the modified ATPIII criteria for Asian Americans by American Heart Association (AHA-ATP III). Serum HSP70 and TNF-a level were determined by using double antibody sandwich enzyme-linked immunosorbent.

Results: We found that HSP70 and TNF-a level were significantly higher in case group than in control group [(32.26±28.52 ng/ml and 178.21±180.29 pg/ml) vs (28.27±25.14 ng/ml and 143.34±114.05 pg/ml), both $P<0.01$], and that HSP70 level was obviously higher in Muslim people than in Han people (32.43±28.42 ng/ml vs 28.19±25.32 ng/ml, $t=-2.76$, $P<0.01$), but TNF-a level was lower in Muslim people than in Han people (139.73±124.12 pg/ml vs 182.31±173.53 pg/ml, $t=4.94$, $P<0.01$). The risk of Han people for high expression of TNF-a was 1.35 times of Muslim people after adjusting for age, sex. The difference of serum HSP70 and TNF-a levels among amount groups of MS component were significant ($F=3.28, 16.53$, $P<0.05$ or $P<0.01$). With the increasing of MS component amounts, both of them decreased first then increased. The main effects of HSP70 and TNF-a levels on MS had statistical significance (both $P<0.01$, $OR>1$), and their interaction effect also had significance ($P<0.01$, $OR<1$). When one of them was high level and the other was low level, the interaction effects all had significance ($P<0.05$ or 0.01 , $OR>1$) and OR values of interaction effect were lower than one of their main effects. While both were high levels, the interaction effect had no significance ($P>0.05$).

Conclusion: The serum levels of HSP70 and TNF-a in MS patients obviously increased, and they decreased first then increased following by increasing of MS component amounts. They could work together to

affect the incidence of MS, but their effects were diverse. TNF-a was a risk factor, and HSP70 was a protective one, so their interaction effect was antagonism. There were the differences on serum HSP70 and TNF-a levels of Han and Muslim. Therefore, the genetic susceptibilities of Han and Muslim people to diseases might be different.

The study was financially supported by the Natural Science Foundation of China (81160110) and Natural Science Foundation of Ningxia (NZ11109).

Milena Spach

Ph.D. Student, University Paris 1, France

Pleasure and Public Policies for Drug Prevention

The drug user, as defined in the economic theory of rational choice is a rational individual who chooses to consume drug after arbitrating between costs and benefits. If drug consumption represents a benefit for the individual, however, drug is a cost for the society. Thus, public policies for primary prevention are implemented in order to discourage teenagers from experimenting drugs. These policies are based on tax increases, consumption restrictions or information about the danger, implying higher costs borne by the consumer of drugs. However, such policies are struggling to reverse the upward trend in drug used by teenagers. It therefore becomes necessary to develop new public policies that are focused on cost increases but also consider the benefits, for the purpose of decreasing its. Therefore, it is necessary to understand benefits of the drug derived by individuals: expectations, motivations and choices that lead teenagers to take risks and use drugs. In this context, the expected pleasure but also the pleasure felt in using drug are major reasons for the drug use. Considering the benefits of consumption - *via* the pleasure - in order to reduce them, new public policies are possible. Understanding the ins and outs of the pleasure for the drug consumption may therefore be the cornerstone of a new policy.

Teresa Stallings

Associate Professor, Northern State University, USA

Using Student-Generated Images to Promote Learning in an HIV/AIDS Education Program for Youth

Through the use of photographic images and simple cartoon drawing, I explore Zambian rural primary school students' beliefs regarding gender, sexual relations, HIV transmission, and HIV stigma.

I also assess the effectiveness of group discussions, based on student-generated images, on students' abilities to identify potential sources of HIV infection.

With one of the world's highest HIV infection rates among youth, and with a decreasing rate of comprehensive HIV/AIDS knowledge, it is essential that effective sexual education programs be implemented in Zambian schools. While the Zambian government mandates teachers to instruct students about gender, sexuality, and HIV transmission using a "Life Skills" approach, local cultural norms prohibiting adults, other than designated extended family members, from discussing sexuality with youth, effectively discourages teachers from addressing these issues in their classes.

Using Wang's (1977) photovoice technique as a template, I developed a methodology by which students, rather than teachers, initiate discussions of culturally sensitive topics. Assisted by teachers and school administrators at a basic school in Zambia's Western Province, I selected a non-probability, purposive sample of 16 youth (8 boys and 8 girls) in grades 5 and 6. Over a 12 week period, students learned camera usage and ethics, as well as how to use images to express their feelings and beliefs.

The use of student-generated images proved very successful in promoting group discussions of gender and sexual relations, sources of HIV transmission, and HIV stigma. Additionally, student photographs, drawings, and comments during group and private discussions, provided the data for me to examine students' perceptions of how HIV is transmitted, along with their sense of agency regarding contracting HIV. I found that while students were familiar with the idea that the HIV virus causes AIDS, they did not believe that it was the sole source of the consequent illness and death. Instead, they integrated traditional beliefs with Western scientific explanations.

Renata Stanczyk

Ph.D. Student, University of Lodz, Poland

Convergence of Health Status in the European Union: a Spatial Econometric Approach

Despite the fact that for the last several decades a health status of the European population has been improving and life expectancy has been growing, regional health inequalities across the EU have also been on the increase. Efforts are being made to achieve an economic and social cohesion, of which reduction of health inequalities between EU regions is an important element.

This work is devoted to the study of the dynamics of health inequalities across EU regions of NUTS II level in the time period 2002-2012. Our study is based on specific research methods. First, we apply structural equation modeling to estimate the synthetic measure of health status. The population health status is a complex and difficult to measure category. The commonly used health status indicators, such as the average life expectancy rate and the infant mortality rate, do not measure the phenomenon as a whole. The diversity of the health status in the EU regions may be explained by the regional diversity of the health-determining factors. Among them one can distinguish elements of the health protection infrastructure and a number of economic and social factors. The answer is the application of the Multiple Indicators Multiple Causes model (MIMIC), belonging to the category of structural equation models. It may be an alternative tool for synthetic evaluation of the health status, as opposed to the classical health status indicators.

Second, we apply existing tools developed in the economic growth literature to study health convergence measured by traditional indicators and the obtained MIMIC measure. Using the idea of unconditional convergence model developed for economic growth, we can confirm a decrease or increase of regional health inequalities. To verify the hypothesis of beta-convergence we use spatial econometric models which additionally allow to take into consideration the geographic dependence among the surveyed regions into consideration.

Donald Stewart

Professor, Griffith University, Australia

Budi Laksono

Director, Wahana Bakti Sejahtera Foundation, Indonesia

MJ Park

Research Fellow, Griffith University, Australia

&

Dongxu Wang

Research Fellow, The Australian National University, Australia

An Integrated Approach to the Prevention of Neglected Tropical Diseases (NTDs): The Way Forward?

A comprehensive, or integrated, approach to health promotion has been widely accepted and supported since the 1986 Ottawa Charter clarified and structured ways to promote better health. Using a population focus and a socio-environmental perspective, the 'pillars' of the Ottawa Charter (promoting healthy public policy, creating supportive environments; strengthening community action; developing personal skills; and re-orienting health services) have led to an acceptance of the need for community action for social and environmental change and the need for 'holistic' strategies with a focus on settings for health promotion initiatives. At the other end of the continuum, medical approaches to promoting better health have often been implemented with a focus on the individual through, for example, screening, individual risk assessment and immunisation.

This presentation uses a sanitation and hygiene project from a village setting in Indonesia to illustrate the value of using a comprehensive, or integrated approach to promoting healthy changes and a life free of such parasites as soil-transmitted helminths (STH). From a socio-ecological perspective, the project engaged village communities in communal action to reduce open defecation and build and use household latrines. Also, behavioural change was facilitated through health education sessions and the support of important 'decision-makers' in the community, such as the Imam, the village leaders and the army. At the same time, medication (Albendazole) was provided to ensure that those infected with STH were effectively treated.

The results of our study provide convincing evidence that an integrated approach is highly successful. Such an approach can substantially reduce and potentially eliminate STH infection. It recognises the importance of having appropriate multi-level (village/district/province) policy settings. It ensures that a sanitation environment with household latrines that make 'the healthy choice the easy choice' are created. It facilitates, supports and

strengthens community action with culturally accepted and appropriate 'influentials'. It ensures that information and education to develop personal skills is provided. It also engages the health services, through chemotherapy in the case of STH, in treatment regimes that are re-oriented to work together with community actions to combat reinfection. Our sanitation and hygiene project illustrates the effectiveness of an integrated approach to the prevention of disease and its potential as the way forward.

Suzanne Sutphin

Research Assistant Professor, University of South Carolina, USA

Tracking Changes in Child Welfare: Using Quality Assurance to Monitor Child Welfare Outcomes

Child welfare and ensuring children are safe from abuse and neglect is critically important. Also of great importance is evaluating the system tasked to protect these children. In South Carolina, a large part of this evaluation is done through state-wide quality assurance reviews. The Center for Child and Family Studies (CCFS) at the University of South Carolina partners with the South Carolina Department of Social Services to conduct the federally mandated quality assurance reviews of each of the 46 counties in the state. The review uses a federally developed tool consisting of 23 items that measure seven outcomes of safety, permanency, and well-being. Since 2011, certain “innovation” counties were reviewed four times a year over the course of two years. This allowed the state to track changes in policy and procedure overtime with the goal of improving outcomes for children in the state. At the end of each review, researchers at CCFS provide counties quantitative and qualitative feedback to counties about their performance in the review and areas needing improvement. Aggregate assessments of the reviews reveal many systemic issues within the agency including the need for more staff and high caseloads for current caseworkers. In addition to agency issues, there are also societal factors that impact the number of child welfare cases in the counties. Using Kids Count data, a national data collection that assess economic well-being, education, family and community, health, and safety and risky behaviors, this presentation will also explore state-level trends in the counties on key demographic factors that can affect potential contact with social services including: median family income, unemployment, number of children in poverty, live births to mothers under 18 years old, live births to mothers with less than a high school education, and child and abuse and neglect by maltreatment typology. Examining data from both sources will help to provide a more accurate picture of social and child well-being in the state.

Mayumi Tanaka

Director, Medical Institute Kitano Hospital, Japan

&

Takuro Matsumura

Staff Doctor, Medical Institute Kitano Hospital, Japan

Pharmacological Treatment for Nocturnal Muscle Cramps

Background: Studies on safe medical therapy for nocturnal muscle cramps are scarce despite their significant impact on quality of life among the elderly. Citric acid is known to prevent exercise-induced muscle cramps among young athletes and has shown promising results in a pilot study of older patients with nocturnal muscle cramps¹.

Purpose: To test whether citric acid is effective in preventing nocturnal muscle cramps among the elderly.

Methods: People at least 50 years of age experiencing nocturnal muscle cramps more than twice a week were recruited by posters in a community-based hospital. Applicants were advised to perform stretching exercises and to take a glass of water before sleep and asked to keep a diary on frequency of nocturnal muscle cramps before and after. Only when muscle cramps persisted (i.e. more than twice a week) they were offered to participate in a cross-over, randomized, controlled, double-blind trial to test efficacy of medical treatment with citric acid for nocturnal muscle cramps. Exclusion criteria included history of known medical conditions that could cause muscle cramps such as: prescribed medicine (HMG-CoA reductase inhibitors, diuretics, etc.), pregnancy, anemia, diabetes mellitus, chronic kidney disease, thyroid diseases, abnormal electrolytes, and dehydration.

Results: Seventy-one out of two hundred and fifty-two applicants returned after physical therapy and hydration. Sixty three were excluded based on criteria. Because of lack of statistical power, RCT was prematurely terminated. Open-label treatment was offered to volunteer patients who suffered from muscle cramps despite physical therapy and hydration. Citric acid was effective for eighteen patients among twenty six patients (=69.2%) who did not respond to physical therapy and hydration.

Conclusion: Citric acid was effective in preventing nocturnal muscle cramps after physical therapy and hydration failed.

Vichai Tienthavorn

Vice President and Dean, School of Medicine, University of Phayao,
Thailand

&

Numfon Eaktasang

University of Phayao, Thailand

**Surveillance, Control, and Prevention Systems of
Hypertension in Singburi, Thailand: Policy to Action**

Hypertension is a chronic non-communicable disease (NCD) that occurs when blood pressure is consistently high for long periods. Hypertension affects all age groups, but the risk of hypertension increases with age. However, finding high blood pressure early, treating, and keeping it in the normal range can reduce the risk of developing complications such as stroke, ischemic heart, and renal failures. Thailand has 10 million hypertension patients in 2013. Hence, Thai Government has policy to reduce the NCD such as diabetes and hypertension. This study was to convert disease oriented to health promotion approach to primary health care, using "VICHAI's 7 Color Balls Model", which was used for primary screening of hypertension. The study investigated in Singburi, Thailand. The target population aged 15-65 which covering more than 90% of Singburi population. The screening result (97.81%) was classified by types and levels of severity of hypertension (blood pressure). The 7 colors are referred to normal (<120/80 mmHg, white), risk (120/80-139/89 mmHg, light green), risk medication (<139/89 mmHg, dark green), mild (140/90-159/99 mmHg, yellow), moderate (160/100-179/109 mmHg, orange), severe (>180/110 mmHg, red), and patients with complication (black). The results were recorded to keep information on their health change. The control and prevention systems were developed to follow up patients using investigation, health education to encourage strictly medication and their behavioral change with best practice of 3Es (Eating, Exercise, Emotion) and 3Rs (Reducing tobacco, alcohol, obesity). After 8 months of project implementation, normal group increased from 116,663 to 120,566 (3.35%), significantly severe patients were changed to moderate of 82.87% and the complication patient with STEMI decreased of 17.14%. Furthermore, the treatment cost decreased from 18.13 to 14.21 million baht. This project is expanding to be implemented in all provinces of Thailand as it is now one of the priority government policy.

Kamlakar Tripathi
Professor, Banaras Hindu University, India
&
Richik Tripathi
Professor, Banaras Hindu University, India

Cost Efficacy in Type 2 Diabetes Mellitus Patients with and without Complication: A Population Based Socioeconomic Study in Eastern India

Objective: To find out the annual Diabetic health care expenditure for a diabetic patient with and without complications in Eastern India.

Method: Data of cost burden on the management of diabetes were collected from patients of Eastern India coming for the treatment in OPD and ward of S.S. Hospital, Banaras Hindu University, Varanasi, India in between Feb2013-Feb2014. The Direct cost (Medical and Non Medical) recorded from patients record sheet after his/her consent and personal counselling.

Results: Total 450 (M: F, 264:186) diabetes mellitus patient screened and divided into following groups i.e. **Diabetic Neuropathy Group-I** (N=197), **Nephropathy Group-II** (N=52), **Retinopathy Group-III** (N=27), **Cardiovascular Group-IV** (N=145) and **Without complication Group-V** (N=29). Patients with diabetic neuropathy 16400 INR (\$261) spend four times more money in compare to without complication patients 4100INR (\$65). The median annual direct cost and indirect cost associated with diabetes care seemed to 60673INR (\$968.522) and 12783INR (\$204.055) respectively. We find out that per person annual cost for the treatment of diabetes was approximately 191260 INR (\$2999.148).

Conclusion: From this study we can suggest that annual expenditure on the treatment of diabetes will be increased if patients are not having proper management and moving towards severe complications. We highlight urgent need for the diabetes prevention and management awareness programs in backward areas of India to prevent most of the people to become diabetic. This study focuses on the epidemiologic aspects of risk factors and complications in the diabetic lower extremity, particularly as they relate to the outcome of exclusion in relation to its influence on demographic factors and socioeconomic considerations.

Richik Tripathi

Professor, Banaras Hindu University, India

&

Deepa Pokharia

Research Scholar, Banaras Hindu University, India

CYR61 as a Factor Involved in the Pathogenesis of Impaired Wound Healing in Type 2 Diabetes Mellitus

Multiple factors are expected to contribute the impaired healing in diabetic patients including alterations in apoptosis by decreasing the number of cells specifically fibroblast that resulted into poor quality of collagen. Specific mechanism for the excessive apoptosis of the fibroblasts during wound healing process in diabetic foot ulcer is not yet fully understood. Hence, to get a better insight for the fibroblast cell apoptosis, it was considered significant to study the intensity of Cysteine-rich 61 (Cyr61) expression, apoptotic signaling molecules Fas and Caspase3, and anti-apoptotic signaling molecule Bcl-2.

For this study 90 subjects were enrolled and evaluated for fasting blood sugar, post prandial blood sugar and Glycated Haemoglobin %, further divided into three groups, 30 controlled diabetic patients without wound(G1); 30 non-diabetic patients having wound (G2) and 30 diabetic patients having impaired wound healing (G3). Biochemical tests were analyzed by Synchron CX5 auto analyzer. Expression of Cyr61, Fas Caspase3 and Bcl-2 at wound site had been studied by immunohistochemical staining method using RTU Vectastain Universal Elite ABC Kit (Vector laboratories) as per the manufacturer's protocol and the intensity of immunoreactivity was evaluated according to a scale of zero no expression, 1 faint, 2 moderate and 3 strong expression.

The fibroblast cells of the group G1 had shown zero expression of caspase3, minimal expression of Fas and Cyr61, and high expression of Bcl-2. Group G2 had shown strong expression of Bcl-2, moderate expression of Cyr61 and minimal expression of Fas and caspase3 in the fibroblast cells. Cyr61 was highly expressed in the fibroblast cells amongst the group G3. Expression Fas and caspase3 were also high in G3, whereas Bcl-2 was very weak.

Thus, the results obtained suggest that in the group G3 fibroblast cells undergo non-regulated apoptosis triggered by Cyr61 and leads to the impaired wound healing.

Maria Tsouroufli

Senior Research Fellow, London Metropolitan University, U.K.

‘Playing it Right?’ Acceptable Professional Femininities in Greek Academic Medicine

This paper draws on qualitative data about the career narratives of 20 Greek women in Academic Medicine. The study employed life-story interviews with a diverse sample of academic women to explore how professional identity and academic professionalism are negotiated and re-constituted under conditions of marginalization within a historically patriarchal academic discipline, national culture and increasingly entrepreneurial academic context.

This paper is concerned with discourses of acceptability, legitimacy and entitlement in the narratives of Greek academic women. I use discourse and content analysis to illuminate the discursive and material practices Greek academic women employ to negotiate and assert their position within ‘extreme’ professional contexts. I treat discourses as gendered, classed and nationalized constructions mobilized within a nexus of intersecting inequalities and privileges at the micro, meso and micro level (Tsouroufli et al. 2011).

Greek academic women drew on notions of personal and professional respectability achieved through gendered strategies and behaviours in interactions with students, relationships with male colleagues, promotion plans and career progression. Greek academic women’s respectability projects were narrated as practices of distancing and differentiation from other women which marked and reified gendered but legitimate professional femininities within the Academy and the Greek society.

I conclude that ‘playing it right’ in gendered academic contexts is a complex and sophisticated process for Greek women that requires both subjection and resistance to gendered, classed and nationalized discourses.

Oana Tudorache

Resident Doctor, "Carol Davila" University of Medicine and Pharmacy,
Romania

Valentin Georgescu

Senior Doctor, "Carol Davila" University of Medicine and Pharmacy,
Romania

&

Sebastian Mihai Armean

Assistant Lecturer, "Iuliu Hateganu" University of Medicine and
Pharmacy, Romania

The Influence of Individual and Environmental Factors upon Resuscitation and Survival of Cardiac Arrest Patients

This paper describes the major findings in a descriptive study on factors that lead to an unexpected cardiac arrest in a general population and factors that influence the outcome of the cardiopulmonary resuscitation. The cases presented over a period of 2 years (years 2011 and 2012) to the Emergency Department of "Saint Pantelimon" Hospital, Bucharest, were analyzed. There were 164,670 presentations, 195 being patients who developed cardiac arrest and were included in the study.

The return of the spontaneous circulation occurred in 40% of the cases and 11.53% of them survived to discharge.

It seemed that the age of the patients was relevant for certain things such as: women develop cardiac arrest at older ages, older patients responded better to resuscitation maneuvers, younger patients had long delays in making the call for the emergency team. The delay in addressing to the Emergency Department since the onset of the symptoms is correlated with poor resuscitation results.

The most frequent complaint to precede the cardiac arrest was shortness of breath, followed by chest pain. The most frequent cause of arrest was determined to be cardiac. There is a correlation between the medical cause of cardiac arrest and the return of spontaneous circulation. It was noted that none of the patients who underwent post-traumatic cardiac arrest survived.

The first monitored rhythm for the study group of patients was a non-shockable rhythm (89.74%) and the type of rhythm did not show an influence over the survival.

A total of 9 patients were discharged after surviving a cardiac arrest; 7 of them were found with a high score of cerebral performance.

The limits of the study are primarily related to the fact that the cases were selected from a single center, but the results are promising and encourage further studies.

Acknowledgement: Paper sponsored by Sectorial Operational Program Human Resources Development (SOP HRD) financed from the European Social Fund and by the Romanian Government under the contract number POSDRU/159/1.5/S/137390

Alain Vanasse

Professor, University of Sherbrooke, Canada

Contribution of Immigration Neighbourhood Attributes to Health Inequalities Assessment

Studies have shown that neighbourhoods may influence the health and behaviours of populations. The health of immigrants is an important research in Canada not only because the immigrant population represented 21% of its population in 2011, but because immigrants have different health status and behaviours than Canadian-born citizens. The objective is to explore if, in a diabetic population living in the Montreal metropolitan area, patients' outcomes and accessibility to care vary with the immigration and socioeconomic attributes of their neighbourhoods. This is a population-based retrospective cohort study including 111,556 patients living in the Montreal metropolitan area and diagnosed with diabetes between 2004 and 2007, without previous cardiovascular disease (CVD). Variables were all-cause hospitalization and death; CVD events; frequent use of emergency care (≥ 4 claims), family medicine care (≥ 22 claims), specialists care (≥ 4 claims); and use of antidiabetic drugs. Using principal components analysis applied to census variables for 6,006 small regions in the Montreal metropolitan area, we calculated scores for immigration, material deprivation, and social deprivation of each region. We used multi-level logistic regression controlling for age, sex, comorbidities and living in the city core to assess the effect of neighbourhood characteristics (immigration and socioeconomic deprivation) on the probability that individuals living in the neighbourhoods experience these outcomes. The cohort cumulated 6,453 deaths, 35,928 hospitalizations and 6,064 CVD events. Patients living in neighbourhoods with high immigration were less likely to experience adverse outcomes but more likely to seek emergency care and specialty care. Materially deprived neighbourhoods with high immigration had the highest utilization rate of antidiabetic drugs. For a metropolitan diabetic population, outcomes and health care inequalities are related to immigration and socioeconomic attributes of their neighbourhoods.

Katrien Vanthomme

Ph.D. Student, Free University of Brussels, Belgium

Hadewijch Vandenheede

Professor, Free University of Brussels, Belgium

Paulien Hagedoorn

Ph.D. Student, Free University of Brussels, Belgium

&

Sylvie Gadeyne

Professor, Free University of Brussels, Belgium

Socioeconomic Differentials in Lung Cancer Mortality in Belgian Men and Women (2004-2005): Does it Matter who you Live with?

The association between individual socioeconomic position (SEP) and lung cancer mortality is well known. Moreover, by providing social, cultural and economic resources, partners positively influence individual health outcomes and behavior at the household level. Yet, few studies have assessed whether partner's SEP affects health in addition to individual SEP.

The study aims are: 1) to study whether SEP, measured at individual (education) and household level (partner's education and housing status), is associated with lung cancer mortality; 2) to examine whether gender differences exist for this association.

Methods: Data consist of the Belgian 2001 census linked to register data on cause-specific mortality for 2004-2005. The study population comprises all married or cohabiting Belgian inhabitants aged 40-74 years.

To estimate absolute differences in mortality by SEP, age-standardized lung cancer mortality rates, directly standardized to the Belgian population, were calculated. To assess relative differences age-adjusted mortality rate ratios were computed (Poisson regression). Analyses were stratified by sex and age.

Results: In men, inverse social gradients in lung cancer mortality were observed for own, partner's education and housing status. These associations remained in the full model. Women aged 40-59 years with a non-tertiary education, a partner with lower secondary education or less, and a worse housing status, showed higher lung cancer mortality risks. The relation with partner's education disappeared in the full model. Older women had a higher mortality risk if they lived with a lower educated partner or when they were tenants of low- or mid-quality houses. The latter association persisted in the full model.

Conclusions: Having a higher educated partner was associated with lower lung cancer mortality, independently from own education. Our results suggest that both material and behavioral benefits of a relationship are of importance. Research as well as policy interventions should also allow for the household level.

Beena Varghese

Senior Health Economist, Public Health Foundation of India, India

Gender Disparity in Seeking Emergency New Born Care Services in Rajasthan, India

Introduction: In India, facility based newborn care centres (FBNCs) at government district hospitals are designed to provide intensive and specialized care for newborns with complications. These facilities thus are important sources of information on newborn care including early and late neonatal deaths. Data from FBNCs are being collected as part of an ongoing evaluation study. This report provides descriptive information of data obtained from FBNCs.

Method: Data on newborn care (name and age of mother, sex and date of birth of newborn, type of complication, place of delivery, and status of newborn: dead, alive and discharged, referred out, and still in FBNC) was collected from the FBNC registers across 13 districts of the western state of Rajasthan, India. Smart phones with preloaded forms are used for all data collection and an e-platform is used for all data management. Data from November 2013 to September 2014 was analyzed.

Results: There were 19,068 FBNC admissions, of which 63% were males and 37% were females. Nearly 60% of admissions (38% female) were from the labor room within the same hospital; 40% came from peripheral facilities (34% were female); 5% from home deliveries; and 23% from private facilities. Case fatality was 7% (1290): 56% of them males and 44% females. 90 percent (1158) of these deaths were ENDs (within seven days of birth). A quarter of these sick newborns were either referred (3741) or left against medical advice (1045) whose status is unknown.

Conclusion: In Rajasthan, India, the FBNCs are prominent places for emergency newborn care. Female neonates account for only 34 to 37 percent of total admissions, however 44 percent of deaths are among the female newborns. This suggests a significant gender bias in both seeking and in provision of newborn care at these centres. This bias may be both household and provider driven and thus requires further attention.

Hai-Ping Zhao

Professor, Ningxia Medical University, China

The Prevalence of Children Overweight and Obesity and Their Effects on Blood Pressure in Yinchuan Children

Objective This study was to explore the status quo of children overweight and obesity in Yinchuan, Ningxia, China and what its effects on blood pressure. **Methods** A stratified cluster sampling method was used. Twelve schools were randomly selected in the three districts of Yinchuan, Ningxia, China, and according to the grade stratified sampling of whole class, a total of 7451 children of 166 classes were enrolled in the study. Anthropometric measurements including height, weight, and waist and hip circumference were conducted for all subjects. **Results** The children's overweight rate was 11.9%, and obesity rate was 7.0%. Both overweight and obesity rates in boys were higher than in girls. The children abdominal obesity rate was 6.6%, and also was higher in boys than in girls. The total rate of hypertension was 16.6%, and the hypertension rates of normal, overweight and obese children were 12.8%, 27.1% and 43.3% respectively. There were the positive correlations between BMI and SBP and DBP ($r=0.383$, $P<0.01$ and $r=0.223$, $P<0.01$, it added a unit each, SBP and DBP could increase 1.294 mmHg and 0.625 mmHg respectively; Waist circumference was also closely related to SBP and DBP ($r=0.434$, $P<0.01$ and $r=0.185$, $P<0.01$), it added 1 cm each, SBP and DBP could increase by 0.512 mmHg and 0.240 mmHg respectively. Likewise, the waist to height ratio was closely related to SBP and DBP ($r=0.235$, $P<0.01$ and $r=0.185$, $P<0.01$), It is for each increase of 0.1 units, SBP and DBP could increase 5.775 mmHg and 3.767 mmHg respectively. The result of Logistics regression analysis showed BMI, waist circumference and waist to height ratio were the risk factors of hypertension. **Conclusion** The blood pressure was higher in overweight and obese children than that in normal, especially in abdominal obesity children.

The study was financially supported by the Natural Science Foundation of China (81260430)