

Vol.66 No.10

ISSN 1347-8060 Nihon Koushuh Eisei Gakkai Soukai Shourokushuu

特別附録 令和元年10月10日 発行

October 2019

JAPANESE JOURNAL OF PUBLIC HEALTH

日本公衆衛生雑誌

第66巻・第10号 特別附録

令和元年10月

第78回日本公衆衛生学会総会抄録集

高 知

日本公衆衛生雑誌
Jpn. J. Public Health

日本公衆衛生学会

Japanese Society of Public Health

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O-E001-2 Rauniyar Santosh (The University of Tokyo, Department of Global Health Policy)
Inequalities in prevalence and management of hypertension in India and Nepal

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Relative muscle mass, Quality and Cardiovascular Diseases Biomarkers in Adults.

O-E001-4 Yamana Hayato (Department of Health Services Research, The University of Tokyo)
Health examination and diabetes treatment initiation in hypertensive workers

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Occupational Activity and Risk of Breast Cancer Incidence: The JACC Study

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O-E002-2 Kobayashi Kimi (Tokyo Metropolitan Institute of Gerontology)
The role of education on financial perception and mental health in older adults

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O-E003-2 Deng Shiqi (University of Tsukuba Graduate School of Comprehensive Human Sciences)
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O-E003-3 Hirao Susumu (Department of Programme Support, The Research Institute of Tuberculosis, Japan Anti-Tuberculosis Association)
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10月24日(木) 8:50~10:05
第7会場(高知新放送会館 5階 51号室)

座長: 眞澤 繁(東北大学東北メディカル・メガバンク機構)

O-E001-1 No benefit on extreme HDL-C on CVD&All-cause mortality: a meta-analysis

Liu Yiwei

Keio University, School of Medicine, department of public health

Introduction: In a long time since Framingham cohort study found the high density lipoprotein (HDL-C) is a protective factor for major cardiovascular disease (CVD) events. However, in our previous study and other cohort studies from other country, we found a U-shape correlation between HDL-C level and CVD mortality. And even elevated the all-cause mortality risk in extreme high HDL-C (over 90 mg/dL) population compare to those within normal HDL-C (40-60 mg/dL). **Method:** we performed the literature between Jan 2000 to Feb 2019 by using PubMed/MEDLINE (National Library of Science), EMBASE (Ovid) and CENTRAL (Cochrane library). We also checked reference lists of included articles and related systematic reviews to identify additional articles. **Result:** Overall, we collected 6 studies (677,434 subjects) for all-cause mortality and 5 studies (667,989 subjects) for CVD event and mortality. The positive relation between extreme-high HDL-C and all-cause mortality result was showing male and its pooled RR was 1.56 [95% confidence interval (CI) : 1.30, 1.87] and no significant result in female (RR:1.06 [0.97, 1.17]). No significant associations were shown in CVD event and CVD mortality in both male and female. **Conclusion:** our meta-analysis showed that an extreme high-level would be a risk factor for all-cause mortality in male, but not in female. And not associated with CVD mortality or events in both genders. Lots of studies claimed that HDL-C does not have any solid causality relationship but only an indicator stands for lipid metabolism activity. Other indicators such as genetic and alcohol intake might have influence as well.

O-E001-3 Relative muscle mass, Quality and Cardiovascular Diseases Biomarkers in Adults.Manda Chrispin Mahala¹⁾, Fukushige Mizuho²⁾, Wagatsuma Yukiko³⁾
Graduate School of Comprehensive Human Sciences, University of Tsukuba¹⁾, Department of Clinical Trials and Clinical Epidemiology, Faculty of Medicine, University of Tsukuba²⁾

Purpose: Reduction in muscle mass and strength have recently received attention in public health practice especially in aging related studies. However, the measurement of these factors may have utility even among relatively younger adults. This study examined muscle mass, muscle strength and quality measurement among participants of annual medical examinations and investigated the relationship with cardiovascular disease biomarkers. **Methodology:** Data of participants aged between 20 to 75 years ($n=1019$) attending annual medical examinations in Mito who had both handgrip strength and BIA measured in FY 2018 were analyzed. Relative muscle mass was defined as total skeletal muscle mass (kg) divided by height (m)³ while muscle quality was defined as handgrip strength (kg) divided by total skeletal muscle mass (kg). **Results:** Of the 1019 participants, 557 (54.7%) were men. The mean (SD) age, and BMI of participants were 58.1 (11.2) years and 23.7 (3.4) kg/m^2 , respectively. The mean (SD) absolute handgrip strength, and skeletal muscle mass were 32.6 (9.3) kg and 42.7 (8.9) kg, respectively. Men and women had significantly different mean values for both relative muscle mass (17.4 ± 1.5 vs. 14.4 ± 1.1 kg/m^2 , $p<0.001$) and muscle quality (0.80 ± 0.11 vs. 0.71 ± 0.10 kg/kg , $p<0.001$). Higher relative muscle mass was associated with lower FPG (β [SE]): -3.19 [0.70], $p<0.001$) HbA1c (-0.07 [0.020], $p=0.002$), triglycerides (-6.18 [3.03], $p=0.04$) and higher HDL-cholesterol (1.09 [0.36], $p=0.050$). Muscle quality was strongly associated with lower HbA1c (-0.40 [0.49], $p=0.007$) and higher HDL-cholesterol (8.92 [3.8], $p=0.020$). **Conclusion:** Results suggest that increased relative muscle mass and muscle quality are strongly associated with a better profile of cardiovascular disease biomarkers in adults even after adjusting for body mass index. Inclusion in community-based medical examinations may have utility in health promotion.

O-E001-2 Inequalities in prevalence and management of hypertension in India and NepalRauniyar Santosh¹⁾, Rahman Mizanur¹⁾, Abe Sarah Krull²⁾, Nomura Shuhei³⁾The University of Tokyo, Department of Global Health Policy¹⁾, National Cancer Center, Center of Public Health Science²⁾, National Center for Global Health Policy, Institute of Global Health Policy Research³⁾

Background Hypertension is one of the leading risk factors for cardiovascular diseases in India and Nepal. Socioeconomic disparity in these two countries has created wide gap in management of hypertension. However, inequalities in prevalence and management of hypertension is poorly assessed in both countries. Therefore, this study analyzes wealth and education based inequalities in prevalence and management of hypertension in India and Nepal, at national and subnational levels. **Method** This study used data from the Demographic and Health Survey, a cross sectional, nationally representative population based survey conducted between January 2015 to December 2016 in India and June 2016 to January 2017 in Nepal. A total of 787,713 individuals in India and 14,454 individuals in Nepal aged 15 years and above were included in the study. Multilevel logistic regression models with random intercepts were used to identify the risk factors associated with prevalence and management (awareness, treatment and control) of hypertension. For inequality assessment, slope index and relative index of were estimated. **Findings** Overall prevalence of hypertension in India and Nepal were 11.4 percent (95 percent confidence interval (CI), 11.4 to 11.5) and 19.6 percent (95 percent CI, 18.9 to 20.2), respectively. Wealth and education based inequalities in awareness, treatment, and control of hypertension were substantially high in both countries. **Conclusion** Wealth and education based inequalities in prevalence and management of hypertension were high among different socioeconomic groups at national and subnational levels. Tailored strategies are required to effectively manage hypertension in these two countries.

O-E001-4 Health examination and diabetes treatment initiation in hypertensive workersYamana Hayato¹⁾, Ono Sachiko²⁾, Yasunaga Hideo³⁾Department of Health Services Research, The University of Tokyo¹⁾, Department of Biostatistics & Bioinformatics, The University of Tokyo²⁾, Department of Clinical Epidemiology and Health Economics, The University of Tokyo³⁾

Aim: Studies report the effectiveness of health examinations on early diagnosis of non-communicable diseases and modification of lifestyles. However, it is unclear whether employment-based mandatory health examination is effective in workers who are already under treatment for chronic diseases. We focused on patients under treatment for hypertension and evaluated the effect of employer-based health examination on treatment initiation of diabetes.

Methods: Using the JMDC Claims Database, we identified workers aged 40-59 years who had treatment for diabetes initiated between April 2012 and December 2016 while on treatment for hypertension. A case-crossover analysis was conducted using 90, 180, and 270 days prior to diabetes treatment initiation as reference points and 90 days after health examinations as exposure period. We conducted a subgroup analysis by hemoglobin A1c (HbA1c) level and frequency of outpatient blood glucose testing prior to health examinations.

Results: We identified 1424 patients who started treatment for diabetes while on anti-hypertensive drugs. In 654 patients (46%), the frequency of testing for HbA1c or glycoalbumin conducted at outpatient services prior to health examination was less than once per 360 days. The overall odds ratio for starting diabetes treatment within 90 days of health examinations was 1.88 (95% confidence interval, 1.68 to 2.09). The subgroup analysis showed that odds ratio increased as HbA1c level increased and frequency of blood glucose testing decreased.

Conclusions: In workers who started treatment for diabetes in addition to hypertension, the mandatory health examination was effective in inducing diabetes treatment. Current screening at outpatient setting may be insufficient, and the health examination may be functioning as an alternative.

O-EO01-5 Occupational Activity and Risk of Breast Cancer Incidence: The JACC Study

SARI GITA NIRMALA¹⁾, Eshak Ehab Salan^{1,2)}, Shirai Kokoro¹⁾, Iiso Hiroyasu³⁾

OSAKA UNIVERSITY GRADUATE SCHOOL OF MEDICINE SOCIAL MEDICINE DEPARTMENT PUBLIC HEALTH¹⁾, Department of Public Health, Faculty of Medicine, Minia University, El-Minia, Egypt²⁾, Department of Public Health Medicine, Faculty of Medicine, University of Tsukuba, Tsukuba, J³⁾

Objective: This study was conducted to find evidence on the association between occupational activity and risk of breast cancer in Japanese women population using the data from the Japan Collaborative Cohort (JACC) Study. **Methods:** This is a prospective cohort study involving 19,041 women aged 40-79 years who have reported their occupational status including housewives. Participants of occupational activities and other variables were assessed by a self-administered questionnaire. The follow up has been carried out from 1988 to end of 2009. For cancer incidence data obtained from 24 areas from 45 areas of study. The Cox proportional hazard models were operated to calculate the hazard ratios (HRs) and corresponding 95% confidence intervals (CIs) for incident breast cancer according to reported categories of occupational activities. **Results:** During 13.3 years median follow-up period, we documented 338 incident cases of breast cancer. Women who do office work were at risk of breast cancer (HR, 1.68; 95% confidence interval, 1.03-2.75) compared with the risk among female manual workers after adjusting for the other participants characteristics, reproductive health factors, and physical activity indicators. The risk of breast cancer in female office workers increased among who mainly sit during office work (HR, 2.07; 95% confidence interval, 1.05-4.06) and was much augmented in women who rarely do walking activities (indoor and outdoor); HR, 2.90; 95% confidence interval, 1.21-6.94 in those with walking hours less than 30 minutes per day. **Conclusion:** Occupational activity was associated with risk of breast cancer. A high risk was observed in women who do office work that increased further if those women were always in a state of sitting position in work and getting much higher if they rarely do daily walking activities. **Keywords:** Occupational activity, Breast cancer, Incidence, Cohort study, Japan.

O-EO02-1 Instrumental activities of daily living of the elderly in the central Viet Nam

Tran Dai Tri Hani^{1,2)}, Nakamura Keiko¹⁾, Vo Tri Hue Man^{1,2)}, Seino Kaoru¹⁾, Vo Van Thang²⁾, Takano Takehito³⁾

Department of Global Health Entrepreneurship, Division of Public Health, Graduate School of Tokyo Medical and Dental University¹⁾, Hue University of Medicine and Pharmacy²⁾, Emeritus Professor, Tokyo Medical and Dental University³⁾

International collaboration for health workforce mobilization across borders (9)

Introduction: Instrumental activities of daily living (IADL) is essential to have an independent life of the elderly. This study examines factors associated with IADL in community-dwelling elderly in the central Viet Nam.

Methods: Data from a random survey of 725 community-dwelling elderly aged 60 and above were analyzed. Eight items of The Lawton Instrumental Activities of Daily Living Scale was used to assess the elderly's ability to perform daily tasks.

Difficulty with IADL was defined as at least one item cannot be independently done by themselves. We used Logistic Regression to analyze the association of demographic, social economic, social support, and health factors on IADL difficulty.

Results: 315 (43.4%) the participants had difficulty with IADL. After adjusting for sex, education, occupation, and the number of chronic disease, the model showed that beside older age-group, lower cognitive function and living with non-spouse were the strongest association with IADL difficulty, with ORs of 3.78 (2.37 to 6.01) and 2.95 (1.46 to 5.97). Having financial strain and living in rural area were the association with IADL difficulty, with ORs of 1.7 (1.19 to 2.47) and 1.54 (1.04 to 2.28).

Discussion and conclusion: Cognitive function, living arrangement, financial strain, and living area were the main association with IADL difficulty. These factors could be possible targets for improving the elderly's independent life.

This research was funded by Hue University of Medicine and Pharmacy (HueUMP) and World Health Organization (WHO).

O-EO01-6 Reducing OOP Health Payment in Afghanistan: a multiple case study

Albari Fatima¹⁾, Machida Munehito¹⁾, Nakamura Hiroyuki¹⁾, Goto Aya²⁾, Hamajima Nobuyuki³⁾, Hara Akinori¹⁾

Kanazawa University, Graduate School of Medical Sciences¹⁾, Fukushima Medical University, Center for Integrated Science and Humanities²⁾, Nagoya University, Graduate School of Medicine³⁾

(Aim)

The aim of this study is to suggest health system reforms effective in reducing Out of Pocket (OOP) payments in Afghanistan; which results in accelerating health inequities and pushing 2.55% of the population below the poverty line annually. (Methods)

This multiple case study with embedded design consists of three countries; acute; experience in OOP reduction (Afghanistan, Korea, and Thailand). For guiding data collection and analysis; the analysis framework was defined based on the concept of (The Five Control Knobs), first proposed in 1997. The global health expenditure database and global health observatory data were used for collecting health financing data, while different local and international reports and journal papers were used for information on control knobs.

(Results)

The most important contributor of health financing in Korea and Thailand was government domestic revenue which has replaced the OOP reduction as well, but, in Afghanistan, it is household's OOP, with relying on foreign donations for OOP reduction. As for the payment control knob, the OOP reduction is assisted by the following reforms in patients; acute; payment methods; 1) abolishment of user fee in Afghanistan, 2) unifying the health insurance agencies under one corporation and 3) controlling fee for services (FFS) centrally in Korea, and 4) introduction of Universal Coverage Scheme (UCS) under 30-bait payment in Thailand. Increasing number of health facilities was the major contributor of organization control knob for reducing OOP in all three cases. Government's acute; regulatory reforms that have affected OOP rate in the following year of their introduction were; regulating the private health sector in Afghanistan, separation of drug dispensing and prescribing in Korea, and introduction of UCS in Thailand. (Conclusions)

Reduction of OOP in Afghanistan can be a result of coordination between several control knobs; acute; reforms (esp. financing, payment and regulation); all of which require political commitment. Increasing government's acute; participation and earmarking surplus tasks for health care financing; separation of health services provision and purchasing, strictly regulating the FFS are good lessons learned from the experience of Korea and Thailand.

O-EO02-2 The role of education on financial perception and mental health in older adults

Kobayashi Kimi, Sakurai Ryota, Nonaka Kumiko, Koike Takashi, Hasebe Masami, Murayama Yoh, Kobayashi Erika, Fujiwara Yoshinori Tokyo Metropolitan Institute of Gerontology

Aim: Lower financial perception has been associated with poorer health and depressive symptoms; however, whether educational attainment mediates this association is still unclear. Higher financial situation is expected with higher educational attainment. Not meeting these financial expectations may negatively influence mental wellbeing in older adults. This study examined the role of educational attainment in the association between subjective financial situation and mental wellbeing in older adults. **Methods:** Four thousand, eight hundred and ninety community-dwelling older adults (mean age and SD, 74.5 ± 6.8; 57.6% female) from an urban area in Tokyo, were divided into 4 groups according to their educational attainment and subjective financial situation. Waves 2013, 2015 and 2017 were used. Mental wellbeing was assessed using the WHO-5 wellbeing index and poor subjective financial situation was defined as perceiving financial strain. Analyses were controlled for potential socio-demographic variables. **Results:** Generalized estimating equations adjusted by socio-demographic covariates indicated significant main effects of educational attainment and financial perception and their interactions effects for WHO-5 scores. Those who had higher education attainment and lower financial perception had an odds ratio (OR) of 3.6 (95% CI 2.5-5.3), compared to those who had lower educational attainment and lower financial perception OR=2.0 (95% CI 1.5-2.7). **Conclusions:** Educational attainment, whether lower or higher, seems to be strongly influenced by perception of financial situation. These results emphasize the impact of financial perception on mental wellbeing in older adults and that various socio-demographic factors may significantly implicate this association.

- P-2301-4 二宮 彩子 (公益財団法人ダイヤ高齢社会研究財団) 在宅要介護高齢者の孤独感が抑うつ悪化に与える影響—定期的アセスメントデータ活用—
- P-2301-5 鈴木 俊輝 (筑波大学医学群医学類) 特別養護老人ホーム入所前後における処方薬剤数および処方内容の変化
- P-2301-6 高橋 秀人 (国立保健医療科学院) 要介護度2移行率改善による境界期健康期間の延伸度—シミュレーションに基づく検討—
- P-2301-7 黒田 直明 (つくば市保健福祉部) 自治体におけるデータにもとづく医療介護施策の推進—保健福祉部参事の経験から
- P-2301-8 佐藤 幹也 (筑波大学ヘルスサービス開発研究センター) 在宅要介護者と施設要介護者の死亡の場所の経年比較: 病院から自宅へ、施設へ
- P-2301-9 小竹 理奈 (筑波大学医学群医学類) 人生の最終段階についての話し合い内容を病院が連携先へ引き継ぐことに関連する要因
- P-2301-10 田中 英夫 (大阪府藤井寺保健所) 精神科長期入院患者の退院促進に向けた取り組みの効果について

10月24日(木) 15:00~16:00
示説(ホスター)会場¹(ホテル日航高知朝日イタル 3階 コールパンフィック)

座長: 赤羽 学 (奈良県立医科大学公衆衛生学講座)

- P-2302-1 森山 葉子 (国立保健医療科学院医療・福祉サービス研究部) 日本語版 ASCOT-Carer により測定された介護者の社会的ケア関連 QOL の実態
- P-2302-2 安永 龍子 (奈良佐保短期大学地域こども学学科) 介護老人福祉施設における身体的負担軽減のための福祉用具導入について
- P-2302-3 赤羽 学 (奈良県立医科大学公衆衛生学講座) リハビリ従事者の離職意向に影響を及ぼす因子
- P-2302-4 筒井 孝子 (兵庫県立大学大学院経営研究科) WHO-DAS2.0の短縮版評価票(10項目版)の開発
- P-2302-5 重田 史絵 (東洋大学ライフデザイン学部) 就労継続支援B型事業所のアウトカム評価-ICF項目に基づく特徴化の試み-
- P-2302-6 石井 充章 (筑波大学大学院人間総合科学研究科福祉医療学分野) 薬局薬剤師に対する共感性評価尺度の開発と患者満足と関連のある要因の検討
- P-2302-7 堀内 美佐 (東京大学総括プロジェクト機構「プラチナ社会」総括寄付講座) 健康関連イベント来場者の意識調査にかかる作業負担の分析
- P-2302-8 濱松 由莉 (東京大学未来ビジョン研究センターデータヘルス研究ユニット) 市町村国保における特定健診・特定保健指導の実施状況: A県内保険者での調査
- P-2302-9 濱口 由子 (公益財団法人結核研究所臨床疫学部) 包絡分析法 (DEA) を用いた結核対策の経営効率性評価

English Session/Poster

10月24日(木) 11:00~12:00
示説(ホスター)会場²(高知会館 2階 白鳳)

座長: 谷川 武 (順天堂大学大学院医学研究科公衆衛生学)

- P-EP01-1 Yamashita Takahiro (Tohoku Medical Megabank Organization, Tohoku University) Dietary patterns during pregnancy and birth weight in Japan

- P-EP01-2 Khatiwada Januka (International University of Health and Welfare) Delivery assistance and its association with neonatal mortality in Nepal

- P-EP01-3 Ganzorig Odmaa (Graduate School of Public Health, International University of Health and Welfare) Parental smoking and prevalence of tobacco smoking among Mongolian adolescents

- P-EP01-4 Garidkhuu Ariuntuul (School of Medicine, International University of Health and Welfare) Speech treatment status of Mongolian children with clefts and hearing impairment

- P-EP01-5 YONG KIM FONG ROSELINE (Akita University Graduate School of Medicine, Department of Public Health) Hikikomori and childhood negative interpersonal relationship experiences

- P-EP01-6 Jannah Miftaahul (Laboratory of Community Health and Nutrition, Special Course of Food and Health Science, Department of Bioscience, Graduate School of Agriculture, Ehime University) Associations of ω3 and ω6 intakes with IMT levels: Toon Health Study.

- P-EP01-7 Al Hasan Syed Mahfuz (Kagawa University, Department of Public Health) Energy transition in the Japanese diet: a joint regression analysis

- P-EP01-8 Jesmin Subrina (Faculty of Health and Sports Science, University of Tsukuba) PROFILING OF NATIONWIDE NON-COMMUNICABLE DISEASE RISK FACTORS IN BANGLADESH

- P-EP01-9 ENKHTUGULGOR MYAGMAR-OCHIR (Department of Public Health, School of Medicine, Dokkyo Medical University) A comparative study on current status and policy of NCDs in Mongolia and Japan

- P-EP01-10 Hasan S M Mahmudul (Tokyo Medical and Dental University) Effects of Physical Activity on Periodontitis in type 2 diabetes in Bangladesh

- P-EP01-11 Thwin Aung Kyaw (International University of Health and Welfare) General characteristics, knowledge and patient activation of type 2 diabetes

10月24日(木) 14:00~15:00
示説(ホスター)会場²(高知会館 2階 白鳳)

座長: 奥村 二郎 (近畿大学医学部環境医学・行動科学教室)

- P-EP02-1 Vo Thi Hue Man (Department of Global Health Entreprenurship, Division of Public Health, Graduate School of Tokyo Medical and Dental University) Cognitive impairment and fear of falling among older Vietnamese adults
- P-EP02-2 Siongco Kathryn Lizabeth Lucena (Tokyo Medical and Dental University) Predictors of type of health facility use among elderly in the Philippines

P-EP01-1 Dietary patterns during pregnancy and birth weight in Japan

Yamashita Takahiro^{1,2)}, Yonezawa Yuda^{1,2)}, Murakami Keiko¹⁾, Nagai Masato¹⁾, Ueno Fumihiko¹⁾, Kuriyama Shinichi¹⁾
Tohoku Medical Megabank Organization, Tohoku University¹⁾, Innovation Division, KAGOME CO., LTD.²⁾

Aim: The objective of this study was to examine the associations between dietary patterns during early pregnancy and birth weight in Japan. **Methods:** This study was based on the Tohoku Medical Megabank Project Birth and Three-Generation Cohort Study. Pregnant women were recruited and they answered a food frequency questionnaire during the first-trimester. Birth weight was obtained from the medical record. We included 17,287 women who had a full-term single healthy baby into the analysis. We classified dietary patterns using k-means, one of the clustering algorithms of the machine learning technique. To compare the mean values of birth weight between dietary patterns, we performed Dunnett's test and multiple linear regression model adjusted for potential confounders. **Results:** As a result of clustering, we classified dietary patterns into seven groups. The groups and their mean values of birth weight were as follows: "high in rice" (reference group) (3075.6 g), "mid-die in vegetables, beans, mushrooms, seaweeds and miso-soup" (3070.2 g), "high in fruits" (3101.5 g), "high in bread, dairy and alcohol" (3059.1 g), "high in meat and fish" (3070.8 g), "high in coffee, black tea, soft drinks and confections" ("high in coffee" group) (3030.8 g), and "high in vegetables, beans, mushrooms, seaweeds and miso-soup" (3082.2 g). Women in the "high in fruits" group gave birth 22.6 g (95%CI: 0.1 to 45.2 g) heavier baby compared with reference group after adjustment. Women in the "high in coffee" group gave birth 44.7 g (95%CI: 3.0 to 86.4 g) lighter baby compared with reference group and this association remained after adjustment (39.4 g (95%CI: 8.6 to 70.3 g)). **Conclusions:** Our results indicated that a dietary pattern high in fruits was associated with increased birth weight, while high in coffee, black tea, soft drinks and confections was associated with decreased birth weight.

P-EP02-2 Delivery assistance and its association with neonatal mortality in Nepal

Khatiwada Januka, Ikeda Shunya, Wada Koji
International University of Health and Welfare

Aim: Globally, 2.5 million infant die in their first month, 300,000 women die in each year prominently in developing countries. Antenatal and postnatal care provided by skilled assistants support reducing neonatal mortality. The well being of mother and newborn is influenced by the place of delivery. This study aims to compare the prevalence of delivery assistance between 2011 and 2016 and its association with neonatal mortality in Nepal. **Methods:** This is a cross-sectional analysis using the secondary data of Nepal Demographic and Health Survey 2011 (n=5391) and 2016 (n=5060). **Result:** The delivery assisted by skilled providers (doctors, nurses and auxiliary midwives) was 36% in 2011 and 58% in 2016. The trend of delivery assistance by non-skilled providers (health assistants/auxiliary health workers, maternal and child health workers, female community health volunteer, traditional birth attendant, relatives/other) was decreased to 60.4% in 2011 from 32% in 2016. However, surprisingly, delivery without any assistant was increased from 3.1% in 2011 to 10% in 2016. The presence of skilled assistants during delivery was associated with a lower risk of neonatal death and higher death was associated with non-assisted delivery. **Conclusion:** the trend of delivery assisted by skilled providers and not assisted by anyone was increased and non-skilled providers were decreased from 2011 to 2016. The neonatal mortality is increased if women deliver without any assistant. Nepal government and health organization may need to pay attention towards increment of institutional delivery and encourage women to deliver with skilled attendance.

P-EP01-3

Parental smoking and prevalence of tobacco smoking among Mongolian adolescents

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Graduate School of Public Health, International University of Health and Welfare¹⁾, School of Public Health, Mongolian National University of Medical Sciences²⁾

Objective: In Mongolia, tobacco smoking is one of the main health issues among adolescents, though there are a few studies analyzing adolescents smoking in this country. This study aims to analyze the influence of parents smoking behaviors on the prevalence of tobacco smoking among Mongolian adolescents.

Methods: This is a cross-sectional study using data from the National Cancer Cohort Study in Mongolia. Data collection was conducted from September 2016 to June 2018, covering 4 regions and a capital city. A total of 2,037 adolescents aged 10-19 years was recruited for this analysis. Participants were interviewed face-to-face using a structured questionnaire that included questions about socio-demographic factors, adolescents tobacco smoking status, smokers in their family members. Descriptive and chi-square analyses were performed with a significant level at $p < 0.05$.

Results: Among all, 8.9% of adolescents (n=150) were answered as tobacco smokers. The prevalence of tobacco smoking was significantly higher in urban areas than in rural areas (11.7% vs. 4.8%, $p = 0.0001$), higher in males than in females (16.4% vs. 3.3%, $p = 0.0001$), higher in living with at least one smoker at home than living with non-smokers only (13.7% vs. 6.9%, $p = 0.0001$). Adolescents living with both parents smoking at home had relatively higher prevalence than adolescents living with either one of parents smoking at home (25.8% vs. 13.4%, $p = 0.0094$).

Conclusion: This study indicated that male adolescents living in the urban area tend to have higher risks to acquire tobacco smoking behavior in Mongolia. Adolescents living with at least one smoker at home also tend to have higher risks, and it has a tendency to increase if both parents have smoking behaviors. Promoting smoking cessations to the parents of adolescents might reduce prevalence of smoking among adolescents.

P-EP04-4 Speech treatment status of Mongolian children with clefts and hearing impairment

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School of Medicine, International University of Health and Welfare¹⁾, School of Dentistry, Mongolian National University of Medical Sciences²⁾

Background: Congenital cleft lip and palate and hearing impairment limits individual's typical spoken language acquisition consequently negatively affecting behavior, intellect, cognition as well as creating difficulties with social interaction. Since establishment of the speech pathology clinic in Mongolia no evaluation was done on the treatment status and absence of evidence based centralized statistical data prompted us to conduct the current study. **Aim:** To analyze and describe current situation of speech therapy treatment at the Dental Hospital of Mongolian National University of Medical Sciences. **Methods:** Cross-sectional retrospective study was carried based on the hospital records between 2007-2012 for children with clefts and 2009-2018 for children with cochlear implantation. **Results:** Out of total 301 patients, 203 (67.8%) gone through speech treatment for children with clefts and 98 (32.2%) received audio verbal therapy after cochlear implantation. Speech treatment rendered to 65.8% of children, diagnosed with hypermasality. Of all participants 77.0% had gone surgery on restoration of congenital cleft lip and/or palate. Out of total 98 cochlear implanted hearing loss cases 36 (36.7%) showed congenital etiology, whereas 62 (63.3%) caused by other risk factors. Out of total cases with cochlear implantation 43 (43.9%) lost hearing between 0-3 years old and 14 (32.6%) of them enrolled in audio verbal therapy within this period. Thirteen participants (30.2%) from total cases involved in audio verbal therapy sessions after age of eighteen. **Conclusion:** The study results will be used for future development of epidemiological databank, related to the speech pathology for children with disabilities in Mongolia. Improvement of hospital records and modification of existing patient's chart is required. Also, evaluation and monitoring are essential for the advancement of evidence-based speech therapy in developing country.

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P-EP01-9 A comparative study on current status and policy of NCDs in Mongolia and Japan

ENKHTUGULDOR MYAGMAR-OCHIR, Kobashi Gen

Department of Public Health, School of Medicine, Dokkyo Medical University

BACKGROUND: In Mongolia, NCDs are accounted for 80% of all mortality. To compare the current status of NCDs in Mongolia and Japan, and to advocate some improving policy to the Mongolian Government (MG). **METHOD:** The study compared with the NCDs death rate, lifestyle, policy, social capitals, and number of papers on NCDs between Mongolia and Japan. We reviewed literatures on PubMed in the last 10-year, policy, and statistics from Mongolia, Japan, and WHO. **RESULTS:** In 2017, the total population of Mongolia was about 3,178 thousand and 46% people reside in Ulaanbaatar. In 2016, Age-standardized NCDs death rate/per 100,000 population in Mongolians was 3.4 times higher than in Japan (825.7 vs 242.5). In 2016, smoking rate was 26% by Mongolian people and it was 20% by Japanese people and the consumption of alcohol, was same in two countries (7 vs 8 liters of pure alcohol). The prevalence of obesity in Mongolia was 5 times higher than in Japan (20% vs 4%). The average Mongolian salt intake was 9.5 g/day. Japanese salt intake was 9.9 g/day. In the last 10-year, the number of papers on NCDs published in PubMed/per 100,000 population in Mongolians was lower compared to Japan (13.0 vs 41.5). MG implementing National Program on prevention and control of NCDs and providing health preventive actions in the 491 first stage hospitals, and 34 second stage hospitals. Since 2000, Japan had been promoting Healthy Japan 21 through many public health nurse and dietitian in 481 Health Department or 2,466 Health Center in communities, and occupational physicians and nurses in companies. **CONCLUSIONS:** Although the MG has been building its commitment and reorienting policies to address prevention and control of NCDs, the population has a lacked knowledge about NCDs. To prevent NCDs, the MG need to build the social capitals like to Japan, strengthen NCD research and skill in medical staff, and use IT technology.

P-EP01-11 General characteristics, knowledge and patient activation of type 2 diabetes

Thwin Aung Kyaw, Wada Koji, Ogawa Toshio, Oo Nwe Nwe
International University of Health and Welfare

Objectives: Diabetes is one of the most serious public health problems in developed and developing countries. One of the reasons for the poor outcome in diabetic individuals is the lack of involvement and awareness about the complications of the disease. The purpose of this study is understanding the factors which may improve diabetes management. **Methods:** A questionnaire-based, cross-sectional study was conducted in Yangon, Myanmar. Total 250 samples were selected who attended diabetes specialist clinic for monthly follow up. The data were collected by using the pre-tested questionnaire, socio-demographic characteristics, diabetes knowledge test (DKT-2) and patient activation measure (PAM-13). **Results:** Highest percentage of age group was 51 to 60 years and most of them are females (54%). Majority of the patients 52.8% had HbA1c less than 7. Knowledge of the participants was highest in Average level 47.6% and lowest in poor level 23%. The distribution of the Patient Activation Measure was 19.6% at level 1, 18.8% at level 2, 26% at level 3 and level 4 at 35.6% respectively. In the logistic regression analysis, average and high knowledge level of the participants is positively associated with high patient activation ($p<0.001$, OR=16.9, CI =6.42 to 44.4) and ($p=0.030$, OR=2.80, CI=1.10 to 7.11). Participants who does not smoke had higher activation level ($p=0.025$) and age of the patients is negatively associated with knowledge ($r=-0.608$, $p<0.001$) and patient activation ($r=-0.338$, $p=0.026$). Participants who were retired had low activation ($p=0.037$). **Conclusion:** This study was provided valuable base line data in strong relation to Knowledge and patient activation. Based on the results, many diabetic patients with old ages, still need support in knowledge and activation. **Keywords:** diabetes knowledge, patient activation, self-management

10月24日 (木) 14:00~15:00

示説 (ホウダウ) 会場2 (高知会館 2階 白鳳)

座長：奥村 二郎 (近畿大学医学部環境医学・行動科学教室)

P-EP02-1 Cognitive impairment and fear of falling among older Vietnamese adults

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Vo Van Thang², Seino Kaoruko¹, Takano Takehito³

Department of Global Health Entrepreneurship, Division of Public Health, Graduate School of Tokyo Medical and Dental University¹, Hue University of Medicine and Pharmacy², Emeritus Professor, Tokyo Medical and Dental University³

International collaboration for health workforce mobilization across borders (10)

Aim: To investigate the prevalence of FoF, its risk factors and association between cognitive impairment and FoF among older Vietnamese adults.

Methods: A survey was conducted in Thua Thua Hue Province, Viet Nam in 2018 of 725 people aged 60 and above. The survey questionnaire asked about socio-demographic characteristics, physical functional status, FoF and cognitive function. FoF was assessed using the Fall Efficacy Scale International (FES-I). Cognitive function was measured by the Mini Mental State Examination with a cutoff point of 23. Multivariate logistic regression analyses adjusted for associated factors were conducted to examine the association between cognitive impairment and high FoF with a significance level at $p<0.05$.

Results: The prevalence of older adults having high FoF was 40.8%. Being female, being of advanced age, being single or formerly married, having a history of falls, chronic disease (arthritis and hypertension), IADL and BADL limitations, vision and walking difficulty, low social support and cognitive limitation were significantly associated with a high FoF. After adjustment for age, gender, marital status, history of falls and health related factors, cognitive impairment remained a significant association with high FoF among older adults (OR = 2.07, 95% CI 1.19–5.59). **Conclusions:** Cognitive impairment was associated with a high FoF among older adults even after adjustment of socio-demographic factors and physical functional status. Identifying cognitively-impaired older adults in communities is crucial for FoF prevention and intervention strategies.

This research was undertaken by the funding of Hue University of Medicine and Pharmacy and WHO Centre for Health Development

P-EP01-10 Effects of Physical Activity on Periodontitis in type 2 diabetes in Bangladesh

Hasan S M Mahmudul, Nakamura Keiko, Seino Kaoruko, Rahman Md Mosiur

Tokyo Medical and Dental University

Introduction: Physical inactivity have been implicated as risk factors for several chronic diseases that are known to be associated with periodontitis, such as cardiovascular diseases, obesity and diabetes. Studies investigating the relationship between periodontitis and physical activity are limited. Therefore, this study was conducted to determine the relationship between physical activity and periodontitis among type 2 diabetic participants in Bangladesh.

Methods: This cross sectional study sample 379, conducted from August to September, 2018 in 3 divisional diabetic centers in Bangladesh. Patient with type 2 diabetes mellitus, age in between 21 to 59. Glycemic level was measured by using HbA1c level and periodontal diseases diagnosed by World Health Organization recommended community periodontal Index.Data collection also included sociodemographic characteristics, anthropometric measurements, physical activity level and dietary assessment.

Results: The prevalence of periodontal disease among type 2 diabetes was 75.7%. The percentage of participants with periodontitis increased with decreased physical activity (68.3% in not adherence to the physical activity & 31.7% adherence to the physical activity). In the adjusted model, respondents were good control of HbA1c (AOR=0.22) were less likely to the periodontitis. The participants those who were physically active (AOR=0.55) were less sufferer to the periodontal diseases. In this results, there was no association between healthy diet and periodontitis.

Discussion and Conclusions: Low level of physical activity significantly associated with increased odds of periodontitis among type 2 diabetic patient. A possible mechanism by which physical activity may protect against periodontitis is by increasing sensitivity to insulin and subsequently prevention of progression of type 2 diabetes. Further studies are needed understand this relationship in greater detail.