Trends in unhealthy lifestyle behaviors among adults in Indonesia, 2007 to 2023

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Background : Indonesia is a rapidly transforming and diverse society, presenting numerous health challenges. Unhealthy lifestyle behavior contributes to higher risks of various adverse outcomes.

Objectives : To examine trends in unhealthy lifestyle factors and how the trends differ across sociodemographic groups among Indonesian adults.

Methods : We used nationally representative data from four Indonesia Basic Health Research (2007-2023) among adults aged ≥20 years. Unhealthy lifestyles were current smoking, unhealthy weight (body mass index <18.5 kg/m^2 or ≥25.0 kg/m^2), inadequate fruit and vegetable intake (<5 servings/day), and insufficient physical activity (<150 minutes/week of moderate physical activity or <75 minutes/week of vigorous physical activity). Logistic regression models adjusted for age, sex, and survey year were used to assess the risk of unhealthy lifestyle behaviors by sociodemographic factors.

Results : A total of 2 374 504 adults were included in this study. The weighted mean (SE) age was 41.9 (0.02) years; 49.5% (weighted proportion) were women. The estimated prevalence of current smoking, inadequate fruit and vegetable intake, and underweight decreased from 2007 to 2023 (P<0.001), while obesity and insufficient physical activity significantly increased (P<0.001). Overall, the estimated prevalence of ≥3 unhealthy lifestyle factors increased from 32.3% (95%CI, 32.1%-32.5%) to 40.1% (95%CI, 39.8%-40.4%), a difference of 7.9% (95% CI, 7.6%-8.2%; P for trend <0.001). Individuals with increasing age, male, living in urban areas, and having higher education were at elevated risk of engaging in multiple unhealthy lifestyle behaviors compared to the reference groups.

Conclusions : While some unhealthy behaviors have declined, the overall lifestyle risk burden has increased, especially in specific sociodemographic groups. Strategic initiatives are needed to promote healthy lifestyles across diverse adult populations in Indonesia.

Outcomes after out-of-hospital cardiac arrest before and during the COVID-19 pandemic in Japan

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Background : The coronavirus disease 2019 (COVID-19) pandemic has disrupted emergency-medical-services worldwide. This study aimed to assess the impact of the COVID-19 pandemic on survival outcomes after bystander-witnessed out-of-hospital cardiac arrest (OHCA) in Japan.

Methods : We enrolled adult patients aged >=18 years old with bystander-witnessed OHCA of presumed cardiac origin who received resuscitation attempts between 2005 and 2022 using a nationwide, prospective, population-based registry of OHCA in Japan. The primary outcome measures after OHCA occurrence were ventricular fibrillation (VF) as well as 1-month survival with favorable neurologic outcome, defined as a cerebral performance category of 1 or 2. We performed a regression discontinuity design analysis to evaluate changes in the trends and levels of survival outcomes before (2005–2019) and during (2020–2022) the COVID-19 pandemic.

Results : Of the 405,734 patients with bystander-witnessed adult OHCA of presumed cardiac origin, 91,827 (22.6%) had VF. The VF proportion did not change before the pandemic (adjusted relative risk [aRR] by month=1.0000; 95% confidence interval [CI], 0.9999–1.0002). The adjusted discontinuity by the COVID-19 pandemic for VF was 0.9609 (95% CI, 0.9347–0.9877). Subsequently, the VF proportion decreased during the pandemic (aRR by month=0.9960; 95% CI, 0.9947–0.9972). The proportion of favorable neurologic outcome increased before the pandemic (aRR by month=1.0041; 95% CI, 1.0039–1.0043). The adjusted discontinuity for favorable neurologic outcome was 0.8012 (95% CI, 0.7601–0.8445), and the proportion of favorable neurologic outcome did not change during the pandemic (aRR by month=0.9984; 95% CI, 0.9960–1.0008).

Conclusion : The negative impact of the COVID-19 pandemic on survival outcomes was observed among bystander-witnessed adult OHCA of presumed cardiac origin in Japan.

Serum cholesterol fractions and all-cause mortality in Japan: the Japan Collaborative Cohort Study

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Background : Dyslipidemia, characterized by elevated non-HDL-C and reduced HDL-C levels, is a risk factor for cardiovascular disease (CVD), and international guidelines recommend LDL-C or non-HDL-C control based on CVD risk. However, as cholesterol has essential physiological roles, HDL-C may reflect lifestyle factors rather than causally reducing CVD risk, and optimal cholesterol management remains complex. This study aimed to assess the dose-response relationship between lipid profiles and all-cause mortality in a large-scale Japanese population cohort, and to assess the clinical relevance of dyslipidemia.

Methods : This retrospective cohort study used data from the Japan Collaborative Cohort Study, which enrolled 110,585 adults aged 40–79 years from 45 areas in Japan between 1988-1990. For the analysis, we included participants with baseline measurements of total cholesterol and HDL-C levels, excluding those under hyperlipidemia treatment. We assessed serum total cholesterol, HDL-C, non-HDL-C (total cholesterol minus HDL-C), and non-HDL-C/HDL-C ratio for exposure. Deaths were confirmed by death certificates from prefectural or municipal public health centers. Time-to-event analyses used multivariable regression with the Cox proportional-hazards model, and the adjusted hazard ratios of each quintile and 95% confidence intervals were calculated by referring to the intermediate quintile.

Results : Individuals of both sexes with low concentrations of total cholesterol, non-HDL-C, and non-HDL-C/HDL-C ratios had a higher risk of all-cause mortality. For HDL-C and non-HDL-C/HDL-C ratios, U- or J-shaped associations with all-cause mortality were observed in both sexes.

Conclusions : Serum total and non-HDL cholesterol levels were inversely associated with all-cause mortality in the general Japanese population. No intensive cholesterol-lowering therapy would be warranted for individuals with hypercholesterolemia except for specially atherosclerosis-prone individuals.

Mapping of dysphagia patient assessment results from acute care hospitals' records to LIFE data

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Background : Long-term care Information system For Evidence(LIFE) is a system that collects data on the condition of long-term care service users and the planning and content of their care from long-term care facilities and service providers. Providing care facilities with accurate test results and condition assessments obtained in the well-equipped diagnostic environment of an acute care hospital is expected to ensure quality of care and support data entry into the LIFE system. To enable international comparisons of these inspection items and indicators, it is important to ensure that each data item, including Japan's LIFE data, can be mapped to ICF(WHO). This study aims to examine how items related to dysphagia assessment during hospitalization in acute care hospitals can be incorporated into the LIFE system.

Methods : As an example, TMG Asaka Medical Center, an acute care hospital, provided the following data entry formats from the medical records of patients with dysphagia:(1) Screening sheet, (2) Team conference sheet, (3) Endoscopic swallowing evaluation form, (4) Dysphagia treatment plan, (5) Medical information referral form, we extracted the referable items from these as LIFE data. Furthermore, we extracted relevant items from ICF pertaining to patients with dysphagia.

Results : Within LIFE data, the sheets used to calculate oral hygiene management fees and the format for oral function improvement service plans include input fields for information such as denture usage status, dietary form, method of nutritional supplementation. Within the ICF Staging Table, the five-level assessments for 5a and 5b “Eating” and 8a “Self care - Oral care” were items relevant to patients with dysphagia.

Discussion : There are still challenges in mapping the results of the four-level assessment for eating and other activities in acute care hospitals to the expressions of the five-stage ICF assessment levels used in long-term care facilities.

Net survival of cervical cancer in Japan (2000-2013): HPV-related histological type and age-group

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Background and Aims : In Japan, detailed studies on the prognosis of cervical cancer are insufficient. We examined prognosis by age group, focusing on human papillomavirus (HPV)-related histological type.

Methods : We obtained data from the gynecologic cancer registry maintained by the Japanese Society of Obstetrics and Gynecology (2000-13). We used data from 44,327 cervical cancer patients treated in hospitals, with a follow-up rate of at least 80%. Age was divided into groups as follows: 15-49 (Young)/50-64(Middle)/65≤ (Elderly) and stage as I/II/III/IV. We used the following histology: HPV-associated epithelial cancer; squamous cell carcinoma (SCC) and non-SCC; those without HPV association or unknown were classified as Other. 5-year net survival was estimated for these categories. Focusing on HPV-associated histological type, we compared 5-year net survival by age-group and histological type.

Results : The proportion of each category of all patients by age/histological type was as follows: Young/Middle/Elderly: 48.1/29.7/22.2 (%), SCC/Non-SCC/Other: 74.6/17.5/7.9 (%). For all patients at stages II-IV, the Young showed the lowest 5-year net survival [Stage III: Young/Middle/Elderly: 52.3/58.6/55.8 (%)], and this trend was similar for only SCC patients. By histological type, Non-SCC and Other patients showed distinctly lower survival rates than SCC patients in stages I-IV. Among Non-SCC patients, the Elderly showed the lowest 5-year net survival in stages I-III, while in stage IV, it was similarly and distinctly low across all age-groups [Young/Middle/Elderly: 17.2/15.9/16.7 (%)].

Conclusion : Young cervical cancer patients showed the poorest prognosis in the most common HPV-related histological type (SCC). HPV-related non-SCC cancer has an extremely poor prognosis, and as it progresses, prognosis is poor regardless of age. This study, focused on HPV-related histological type and age, supports the need for strengthening primary prevention in cervical cancer control.