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implemented in almost all higher medical colleges. Graduates of this programs work in pilot medical organizations. More than 80% of teachers have support from the leadership of the organizations and have the opportunity for professional growth. Satisfaction with the quality of the programs among them amounted to 85%. The chances of dissatisfaction of the remaining teachers were 1.7 times higher for those who did not undergo additional training (OR=1.7, 95%CI=[0.8;3.6]). Among employers, 72% believe that with the introducing of NPs, doctors have more time to do more complex work, and they began to pay more attention to complicated cases. It is also observed insufficient explanatory work among the population on the new status of nurses. **Conclusions:** Coordination of work on reforming nursing at the level of local health authorities, the activity of professional associations, support of medical organizations and informing the population in this area using all available methods are crucial to meet the international level in the Kazakhstan nursing system.

PNS14 INVESTIGATION OF PHYSICIANS' DIGITAL ACTIVITIES ON MITIGATING THE IMPACT OF COVID-19 IN CHINA

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Objectives: COVID-19 outbreak caused a global health crisis and posed public health challenges. During the outbreak, digital technologies were widely used to enhance prevention measures. Kantar in association with CphMRA, conducted a survey to understand the use and role of digital health tools among Chinese physicians during the epidemic. **Methods:** A cross-sectional online survey was conducted from February 29th to March 5th in 2020, using convenience sampling to collect physician behaviour in terms of digital activity and participation in internet hospitals. Logistic regression was used to analyse the digital activity data, and mixed model was used to analyse the internet hospital practice including online diagnosis and treatment before and during the outbreak. **Results:** This study included 28.3% residents, 35.5% doctors-in-charge and 36.2% chief/vice-chief physicians from 30 provinces (n=3691). In total, 79.5% of respondents engaged in digital activities to enhance public health/medical education and communication such as webcasting, case sharing, and patient management. The results also show that physicians practising in higher level hospitals ($p<0.001$) as well as those working in fever clinics ($p<0.05$) were significantly more likely to use digital tools. Moreover, 66.1% respondents registered with internet hospitals and 22.8% of whom had registered new accounts during the outbreak. The number of online medical service during the outbreak was significantly higher (29.1 patients/week, 95% CI: 7.5~50.6) than that before the outbreak. The physicians in lower level hospitals and those registered more internet hospital accounts were significantly more likely to conduct online medical services ($p<0.05$). Additionally, 75.1% of the online prescriptions were delivered to patients' doorsteps, with higher incidence in more serious epidemic regions ($P<0.01$). **Conclusions:** Digital technology was extensively used to enhance public health strategies and mitigate the impact of COVID-19 by improving medical education, communication, and ensuring continuity of health services for patients while preventing unnecessary hospital visits.

PNS15 EFFECTS OF DIFFERENT FAMILY PLANNING POLICIES ON CESAREAN SECTION RATES FROM 2009 TO 2019: A POPULATION-BASED REGISTRY IN CHINA

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Objectives: To explore the effects of one-child, selective two-child and universal two-child policy on cesarean section (CS) rates in China. **Methods:** Based on the Xiamen registry of pregnant women and offspring (REPRESENT), We collected the healthcare data of maternal and offspring from all maternity institutions among Xiamen City, a sub-provincial city in southeast China. According to the timing of different family planning policies announcement and the lagged time of taking effect (about nine months), the study period was divided into three stages, involving one-child (January 2009 to June 2014), selective-two (July 2014 to June 2016) and universal-two (July 2016 to March 2019). A modified Robson classification was further used to grade the individual's risk of undergoing CS. Univariate and multivariable Poisson regression models were used to explore the effects of one-child, selective two-child and universal two-child policy on CS rates. **Results:** In total, 31.4% (165 951/528 118) of pregnant women underwent CS from 2009 to 2019. Over three stages (one-child, selective-two and universal-two), there were more pregnant women with delivery history (21.0%, 50.5%, and 60.5%, $p<0.001$) and CS history (4.2%, 15.0% and 18.5%, $p<0.001$). After adjusted the confounders, the multivariable Poisson models showed the risk of CS - compared with one-child stage - declined by 11% (adjusted relative risk 0.89, 95% confidential interval 0.88-0.90) in selective-two stage and 15% (0.85, 0.84-0.86) in universal-two stage. Similar results present in nulliparous population, with 12% drop in selective-two stage (0.88, 0.86-0.89) and 15% drop in universal-two stage (0.85, 0.84-0.86). Additionally, the risk of CS for multiparous women without CS history significantly decreased in selective-two stage (0.69, 0.66-0.73) and universal-two stage (0.56, 0.53-0.73). **Conclusions:** The implementation of the two-child policies, both selective and universal, showed positive effect on the decline of CS rates in China.

PNS16 HEALTH AND ECONOMIC BURDEN OF SMOKING IN INDONESIA

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Objectives: The prevalence of smoking among Indonesian males, especially those of working age, is the highest in the world, and smoking-related impact on productivity at population levels in Indonesia remains unknown. To estimate the impact of smoking in the Indonesian population of working-age in terms of costs, years of life, quality-adjusted life years (QALYs) and productivity-adjusted life years (PALYs) lost. **Methods:** Life-table modelling of Indonesian smokers age 15 to 54 years, followed-up until 55 years (retirement age). Contemporary data on demographic, mortality and prevalence of smoking were derived from the Institute for Health Metrics and Evaluation and the World Health Organisation. The population attributable risk, quality of life and reduction in productivity due to smoking were derived from published sources. The analysis was repeated but with the assumption the cohorts were non-smokers. The differences in results represented the losses incurred by smoking. Gross domestic product (GDP) per equivalent full-time (EFT) worker (USD 11,765) was used for estimation of the cost of each PALY, and annual discount rate of 6% was applied to all costs and outcomes. **Results:** The prevalence of smoking among Indonesian working-age males and females were 67.0% and 7.9%, respectively. This study estimated that smoking caused 667,556 excess deaths, 1.6 million years of life lost (0.26%, 0.03 per person), 32.9 million QALYs lost (5.74%, 0.57 per person) and 11.9 million PALYs lost (2.16%, 0.21 lost per person). The total cost of productivity loss due to smoking amounted to USD 139.8 billion. Healthcare costs devoted to smoking-associated diseases was predicted to be USD 1.6 trillion. **Conclusions:** Smoking imposes a significant health and economic burden in Indonesia. The findings of this study stress the importance of developing effective tobacco control strategies, which would benefit the country both in terms of health and wealth.

PNS17 EXPERIENCE AND PREVALENCE OF IQOS HEATED TOBACCO PRODUCT AMONG ADOLESCENTS IN TAIWAN

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Objectives: Heated tobacco products (HTPs), such as the "I-Quit-Ordinary-Smoking" (IQOS) heat-not-burn system, are openly sold in many countries. This study examined the extent to which IQOS products had penetrated the Taiwanese youth market by 2018. **Methods:** Data were obtained from the cross-sectional Taiwan Global Youth Tobacco Survey 2018, which focuses on adolescents aged 12-18 years. The two dependent variables were the ever use and the current use of IQOS (within 30 days prior to survey completion). Independent variables included gender, school grade, monthly income/allowance, use of traditional cigarettes and e-cigarettes during the previous 30 days, educational level of parents, smoking status of parents and close friends, access to free cigarettes, contact with cigarette advertisements, and exposure to anti-tobacco courses. Logistic regression was used to identify factors correlating with the ever use and the current use of IQOS by adolescents. **Results:** At the time of the survey, 4.17% of those surveyed had tried IQOS and 2.33% were currently using IQOS. The factors associated with an elevated likelihood of IQOS ever use were as follows: male sex (OR=1.29), current use of cigarettes (OR=3.40) or e-cigarettes (OR=1.98), close friends who smoke (OR=1.20), access to free cigarettes (OR=4.49), and participation in classes on the dangers of tobacco (OR=1.33). The factors associated with an elevated likelihood of current use of IQOS were as follows: male sex (OR=1.36), current use of cigarettes (OR=4.09) or e-cigarettes (OR=6.18), close friends who smoke (OR=2.38), and access to free cigarettes (OR=2.50). **Conclusions:** The factors associated with ever use and current use of IQOS were the same. HTPs are not sold legally in Taiwan. Despite the relatively low usage of IQOS in Taiwan, we recommended that the government accelerate the passage of regulations aimed at controlling the sale and marketing of HTPs.

PNS18 UNDER THREAT OF COVID-19, IS IT AGAINST HUMANITARIANISM TO ADOPT SEALED MANAGEMENT IN PUBLIC HEALTH EMERGENCIES? A SURVEY BASED ON CHINESE PUBLIC ATTITUDES TOWARDS THE LOCKDOWN OF WUHAN, CHINA

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Objectives: In public health emergencies, adopting sealed management to close community or city can effectively prevent spread of epidemics. Some social critics think it's against humanitarianism. Taking case of "lockdown of Wuhan, China", this study investigates Chinese public attitudes to verify if it's against humanitarianism. **Methods:** For each questionnaire, living region, age, gender and "whether there are medical staffs among relatives or friends" (WF) are selected be categorical variables for comparative analysis. Remaining questions are set up in accordance with nine