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THE PUBLIC HEALTH IMPLICATIONS OF GOOGLE TRENDS AND NEWS COVERAGE FOR COVID-19 IN THE EARLY EPIDEMIC STAGE: A MULTINATIONAL STUDY IN EIGHT COUNTRIES

Huang F,[1] Feng G,[2] Liu T,[3] Chen Q,[1] Jian T,[1] Zhong Q,[4] Hao D,[4] Yan N,[5] Liu T,[4] Ming WK[4]

[1]*Jinan University, Guangzhou, 44, China,* [2]*Department of Public Health And Preventive Medicine, School of Medicine, Jinan University, Guangzhou, 44, China,* [3]*University of Groningen, Liyang, 32, China,* [4]*Jinan University, Guangzhou, China,* [5]*Jinan University, GuangZhou, China*

Objective: This study aims to understand health communication through Google Trends and news coverage and to explore their relationship with the prevention and control of COVID-19 in the early epidemic stage. ***Methods:*** We collected data on COVID-19 news coverage and Google search queries for eight countries (United States, United Kingdom, Canada, Singapore, Ireland, Australia, South Africa, and New Zealand) between January 1, 2020 and April 29, 2020, and depicted the trend of news coverage on COVID-19 over time, as well as search trends on the topics of COVID-19 related diseases, treatments and medical resources, symptoms and signs, and public measures. The characteristics of various trends in different countries were described and analyzed. ***Results:*** Across all search trends in eight countries, search peaks were formed almost between March and April 2020, and declines occurred in April 2020. For treatments and medical resources, the term "mask" formed multiple search peaks. In the topic of symptoms and signs, "fever" and "cough" were the most searched terms. The topic of public measures was the least searched. Besides, when combing the search trends with news coverage, there were mainly three patterns: the American pattern, the Singapore pattern, and the other-countries pattern. ***Conclusions:*** Our findings revealed the level of public concern or neglect for various aspects of COVID-19. As a source of information, news media can influence the search behaviors of the public. Because public concerns varied in different countries and periods, news media can be used to spread more valuable information, and thus achieve more effective health communication. Governments and health care systems can recognize Google Trends as public needs of COVID-19 crisis, and can translate public needs into practices to better control disease. Therefore, news coverage and Google Trends also contribute to the prevention and control of epidemics in the early epidemic stage.

PIN42
MOLECULAR TESTING DYNAMICS IS REACTIVE TO COVID-19 INCIDENCE: OBSERVATIONS FROM THE COLOMBIAN EXPERIENCE

Lozano A,[1] Zakzuk J,[2] Salcedo Mejía F,[3] Moyano L,[4] Alvis-Zakzuk N,[5] Alvis-Zakzuk NR,[4] Alvis-Guzman N[6]

[1]*ALZAK Foundation, Cartagena, BOL, Colombia,* [2]*ALZAK Foundation-Universidad de Cartagena, Cartagena, BOL, Colombia,* [3]*ALZAK Foundation, Cartagena, Colombia,* [4]*ALZAK Foundation, Cartagena de Indias, BOL, Colombia,* [5]*Universidad de la Costa-CUC, Barranquilla, ATL, Colombia,* [6]*ALZAK Foundation - Universidad de Cartagena, Cartagena, Colombia*

Objectives: Testing is widely accepted as critical to fighting the COVID-19 pandemic. To understand the dynamics of tests conducted could help to assess a country response to the pandemic. In that sense, our aim was to verify if there is a relationship between pandemic dynamics and molecular tests conducted in Colombia. ***Methods:*** We retrieved publicly available data from The Colombian National Institute of Health from March 2 to December 31, 2020, on testing and outcomes related to COVID-19. Pearson correlation coefficients were calculated between molecular tests conducted per 100000 persons and death or incidence rate per 100000 people of every department of Colombia. To assess if there a cyclic relationship between the daily number of molecular tests and daily COVID-19 cases in Colombia, we executed a cointegration analysis and evaluated the hypothesis with an augmented Dickey-Fuller (ADF) test. A critical value of -3.42 for rejecting the null hypothesis at 5% was used. ***Results:*** There was a positive correlation between molecular tests conducted and COVID-19 incidence and death rate (r = 0.79, $p < 0.01$ and r = 0.64, $p < 0.01$, respectively). The cointegration (ADF) test revealed a statistically significant and closely time-dependent stochastic structure between daily COVID-19 cases and number of molecular tests (ADF, -3.50; $p < 0.01$). ***Conclusions:*** In Colombia, the molecular tests conducted are reactive to COVID-19 incidence and, in contrast to other scenarios, the molecular testing increase does not reduce COVID-19 incidence or mortality.

PIN43
SOCIODEMOGRAPHIC CHARACTERISTICS ASSOCIATED WITH VACCINATION FOR DENGUE FEVER AND YELLOW FEVER IN BRAZIL: RESULTS FROM THE 2018 NATIONAL HEALTH AND WELLNESS SURVEY

Thompson J,[1] Annunziata K,[2] Clark O,[3] Lee L[4]

[1]*Kantar, Providence, RI, USA,* [2]*Kantar, New York, NY, USA,* [3]*Kantar, New York City, NY, USA,* [4]*Kantar, San Mateo, CA, USA*

Objectives: Dengue fever (DF) and yellow fever (YF) are infectious, mosquito-borne diseases that represent a significant public-health concern in tropical/sub-tropical regions, including Brazil. Vaccinations play a key role in reducing the spread of DF/YF. The objective of this study was to determine sociodemographic characteristics associated with vaccination for DF or YF in Brazil. ***Methods:*** The 2018 National Health and Wellness Survey (NHWS), a cross-sectional, nationally-representative stratified-sample was used for this study. Participants (age≥18) were classified based on self-reported vaccination for DF/YF as: in the past 12-months, before the past 12-months, and never-vaccinated. Participants vaccinated within the past 12-months were compared to those never-vaccinated across multiple socio-demographics, including sex, age, race, socioeconomic-status, education, income, employment, health-coverage-type, marital status, and region. Significant predictors of DF-vaccination and YF-vaccination were assessed using logistic regression modeling. ***Results:*** Of the 12,000 adult participants in the Brazil 2018 NHWS, 3.8% (n=457) had a DF-vaccination in the past 12-months, 7.3% (n=876) had received earlier DF-vaccination, and 88.9% (n=10,667) reported no DF-vaccination. Higher vaccination rates were seen for YF, with 25.3% (n=3,034) vaccinated in the past 12-months, 25.9% (n=3,108) vaccinated prior, and 48.8% (n=5,858) never vaccinated. Statistically-significant predictors of recent DF/YF vaccination included sex, age, race, socioeconomic-status, region, education, and health-coverage-type. Compared to the Southeast region, the odds of DF-vaccination were lower in the South and Northeast, and the odds of YF-vaccination lower in all regions. Being female was associated with a decreased odds of DF-vaccination (OR=0.76; 95%CI:0.63-0.93) but an increased odds of YF-vaccination (OR=1.21; 95%CI:1.10-1.34). Participants with a health-coverage-type of non-private displayed a lower odds of DF-vaccination (OR=0.80; 95%CI:0.65-0.99) and YF-vaccination (OR=0.81; 95%CI:0.73-0.90) compared to privately-insured. ***Conclusions:*** Multiple sociodemographic characteristics are significantly associated with dengue fever or yellow fever vaccination. Efforts to improve vaccination rates could potentially include consideration of these significant predictors to better target unvaccinated individuals.

PIN44
COVID-19 KNOWLEDGE, AND MENTAL HEALTH IMPACT ASSESSMENT IN HAITI

Gousse Y,[1] Jean T[2]

[1]*St. John's University, Brooklyn, NY, USA,* [2]*St. John's University, Queens, NY, USA*

Objectives: To assess the impact of the COVID-19 pandemic and needs of individuals residing in Haiti. ***Methods:*** This study is a collaboration between an Investigator from St. John's University Public Health Program, Queens NY and capracare Inc., Haiti. A cross-sectional survey was administered to assess COVID-19 knowledge, and mental health status, and resources among individuals residing in Haiti. The Perceived Stress Scale (PSS-4), and the Patient Health Questionnaire for Anxiety and Depression (PHQ-4) was administered. PHQ4 scores ≥3 on selected items suggests anxiety or depression. Higher PSS-4 scores suggest increased depression. ***Results:*** The sample comprised of 204 adults, aged 18 to 81 (mean = 39.68 years). The majority were male (63.2%), single (71.6%), and born in Haiti (99.5%). Over half of the sample did not complete a High School (65.7%); and 17.5% were unemployed. The majority of respondents (91.2%) lived in multi-generational households; eighty-three percent lived at home; and 13.3% are homeless. Nearly half (49.0%) of respondents store water in containers; only 2.9% have a plumbing system at home; and 89.7% use of an outhouse. Nearly all (98.0%) of the sample had prior knowledge of COVID. The majority (82.4%) reported being able to isolate themselves or a family; 17.6% indicated no space for isolation; 37.3% reported not knowing how to provide care. PSS-4 scores ranged from 1 to 12, (Mean 7.33; SD =1.95) indicating some depression resulting from the pandemic. Over one third (32.4%) scored ≥3 on the PHQ-4 Anxiety Subscale suggesting experiencing anxiety as a result of the COVID-19 pandemic. Nearly half (41.7%) scored ≥3 on the PHQ-4 Depression Subscale suggesting some level of depression as a result of the pandemic. ***Conclusions:*** This analysis identified key issues to inform the development of strategies to mitigate the transmission of COVID-19; as well as to address long-term psychological issues resulting from the pandemic in Haiti.

PIN45
ANTIBIOTIC CONSUMPTION AMONG HOSPITALIZED PATIENTS USING THE WORLD HEALTH ORGANIZATION AWARE CLASSIFICATION: A SECONDARY ANALYSIS OF A POINT-PREVALENCE SURVEY IN NORTHERN NIGERIA

Abubakar U, Haseeb MT

International Islamic University Malaysia, KUANTAN, 06, Malaysia

Objectives: There is paucity of data describing the quantity of antibiotics used among hospitalized patients in Nigeria. This study describes the quantity of antibiotics (in defined daily dose [DDD]) used among hospitalized patients using the World Health Organization access, watch and reserve (AWaRe) criteria. ***Methods:*** A point-prevalence survey was conducted in three acute care hospitals among patients who were admitted before or at 8:00 a.m. on the day of the survey. The data was collected through the review of patient's medical record in April and May 2019. Antibiotics prescribed, used or scheduled to be used on the day of the survey were recorded including the route of administration, dose, and frequency. ***Results:*** A total of 321 hospitalized patients were surveyed and 215 adult patients were included in this analysis. The total quantity of antibiotics prescribed was 116.6 DDD/100 patients with cephalosporins (36 DDD/100 patients), imidazoles (31.6 DDD/100 patients), penicillins (18.6 DDD/100 patients) and fluoroquinolones (16.5 DDD/100 patients) accounting for 30.9%, 27.1%, 16.0% and 14.2% of the total quantity, respectively. Oral antibiotics accounted for 44.3% of the prescriptions and 57.3% of the total quantity of antibiotics used. The access