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which regions are most affected and which regions will encounter outbreaks as well as support decision making processes.

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Contact patterns during the COVID-19 pandemic: findings from British Columbia, Canada

P. Adu^{1,2,*}, M. Binka¹, S. Iyaniwura³, N. Ringa¹, M. Irvine¹, M. Otterstatter¹, N. Janjua^{1,2}

¹BC Centre for Disease Control, Vancouver, Canada

²University of British Columbia, School of Population and Public Health, Vancouver, Canada

³The University of British Columbia, Department of Mathematics, Vancouver, Canada

Purpose: Interpersonal interaction between infectious and uninfected individuals facilitates the spread of COVID-19. Physical distancing measures could prevent COVID-19 transmission by reducing the contacts among individuals in the population. In this study, we describe contact rates of residents of British Columbia, Canada to assess the impact of COVID-19 related physical distancing measures in the province.

Methods & Materials: We used data from the BC COVID-19 Population Mixing Patterns survey (BC-Mix) to investigate the contact patterns of residents of British Columbia from September 2020 to July 12, 2021. The BC-Mix is an ongoing repeated online survey with approximately 60,000 participants. Survey respondents provided the number of close contacts made in a single day in response to the question "How many people did you have in-person contact with between 5 am yesterday and 5am today?" In-person contact was defined as "face-to-face two-way conversation with three or more words, or physical skin-to-skin contact such as a handshakes, hugs, kisses and contact sports". Survey weights were applied in the estimation of overall contact rates and contact rates stratified by age, sex and health region.

Results: A total of 31, 696 respondents were eligible for analysis. Overall average daily contacts decreased by about 28% in response to the physical distancing measures that went into effect on November 19, 2020 (from an average of 6.42 contacts per person prior to this date to 4.62 contacts per person after this date). From September 2020 to February 2021, the average number of daily contacts were higher among female respondents compared to male respondents. However, no notable difference in the average number of daily contact rates was observed between male and female respondents in subsequent weeks. Over the study period, younger age groups (< 55 years) reported higher daily contact overall than older age groups (≥ 55years years). There was also a marked difference in contact rates by health regions over the study period.

Conclusion: Contact patterns in British Columbia varied between September 2020 and July 2021, with a marked decline in average daily contacts noted immediately following the introduction of stricter physical distancing measures in November 2020.

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COVID-19 Transmission Under the Public Health Radar: High Prevalence in Young Adults for COVID-19 Pandemic Wave 1

J. Dudley^{1,2,*}

¹University of Alaska Fairbanks, Fairbanks AK, United States

²Leidos Inc, Alexandria VA, United States

Purpose: Compare reported data on age specific rates of SARS-CoV-2 infections in countries from several continents to identify differences in age specific incidence of reported cases in different countries.

Methods & Materials: Data on age-specific case incidence of SARS-CoV-2 derived from publicly available databases from selected countries in Europe, North America, Australasia, and Asia were collected and analysed to identify and evaluate trends in reported age specific distribution of morbidity from SARS-CoV-2 in countries for which data was available.

Results: Data for laboratory confirmed COVID-19 cases from South Korea, Australia, New Zealand, Japan and the Netherlands exhibited essentially identical profiles, with a bimodal distribution that shows highest rate of confirmed SARS-CoV-2 infections among individuals in the 20-29 years age cohort (21%-27% of total), and a second lower peak for the 50-59 or 60-69 age cohorts (16-18% of total), while preliminary data from China, United States and Sweden exhibited a unimodal distribution with highest rate of positive individuals for the 50-59 age cohort.

Conclusion: There is increasing evidence that individuals < 30 years of age may be playing a highly significant role in the facilitation and amplification of COVID-19 transmission in countries worldwide. Data reported from the first wave of the COVID-19 Pandemic in at least 5 countries (South Korea, Australia, New Zealand, Japan, Netherlands) demonstrated that greater attention should be paid to the frequency and epidemiological importance of COVID-19 infections among young adults in the 20-29 year age cohort, because individuals in this age range comprise a large proportion (21%-27%) of the known laboratory confirmed COVID-19 cases in these countries, and perhaps other countries for which reliable data are not yet available. The epidemiological importance of COVID-19 infections among young adults and adolescents in amplifying and facilitating the proliferation of the COVID-19 Pandemic has been systematically underestimated in many countries, because of low rates of testing among asymptomatic individuals and low rates of severe disease or mortality among individuals <30 years of age. Clarifying and understanding the epidemiological dynamics of SARS-CoV-2 transmission among individuals in younger age cohorts will help in determining control strategies at the individual and population levels.

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Evaluating the Quality of Federal SARS-CoV-2 Diagnostic Testing Data

K. Schechtman^{1,2,*}, J. Rivera^{1,3}, Q. Nguyen^{1,4}, R. Glassman¹, M. Mart¹

¹The COVID Tracking Project at The Atlantic, Data Quality, Washington, DC, United States

²Stanford University, Symbolic Systems, Stanford, CA, United States

³Boston Children's Hospital, Innovation and Digital Health Accelerator, Boston, MA, United States

⁴Geisel School of Medicine, Epidemiology, Hanover, NH, United States

Purpose: In April 2020, the US Department of Health and Human Services (HHS) and the US Centers for Disease Control and Prevention established the COVID-19 Electronic Laboratory Reporting program (CELR) to collect data on SARS-CoV-2 laboratory tests. Over the course of the following year, the federal government, partnering with the Association for Public Health Laboratories, on-