

APRU Global Health Conference 2021

GLOBAL URBAN HEALTH

16-18 November 2021

The University of Hong Kong, Pokfulam, Hong Kong

Abstract No. 36 The Indirect Impact of COVID-19 Pandemic on Chronic Disease Care in Hong Kong

Theme A. Non-communicable diseases

Author(s): Carmen S Ng, Jiayin Chen, Jianchao Quan

Affiliation(s): School of Public Health, LKS Faculty of Medicine, The University of Hong Kong, Hong Kong SAR, China

Background

- As of April 2021, the number of COVID-19 confirmed cases in Hong Kong was 11,771 cases. Measures adopted in Hong Kong included active surveillance, border screenings, contact tracing, and social distancing measures.
- At a global level, the economy and health service delivery were disrupted and those with chronic conditions like diabetes were associated with more severe COVID-19 when infected (Wonjun et al 2020), leading to patterns of reduced healthcare utilization that differed by age and sex (Lee & You, 2021; Kim et al. 2021).
- An online survey revealed that diabetes was most impacted by a reduction in healthcare resources in Europe and Asia due to COVID-19, followed by chronic obstructive pulmonary disease (9%) and hypertension (8%). Individuals with diabetes mellitus have also been shown to increase risk of complications and even death.

Purpose

- A part of a cross-regional study including India, China, Hong Kong, Korea, and Vietnam.
- To assess the impacts of COVID-19 pandemic on chronic disease care during COVID-19 related lockdowns, particularly among those living with chronic conditions by age, sex, and socio-economic groups in Hong Kong.
- To analyze the factors associated with difficulty in access to health care or medications and worsening of diabetes symptoms during the pandemic across different health systems in Hong Kong.

APRU Global Health Conference 2021

GLOBAL URBAN HEALTH

16-18 November 2021

The University of Hong Kong, Pokfulam, Hong Kong

Abstract No. 36 The Indirect Impact of COVID-19 Pandemic on Chronic Disease Care in Hong Kong

Methods

- Conducted 30 cross-sectional telephone surveys among adults in Hong Kong from June 2020 until Dec 2020, during both working and non-working hours to avoid over-representation of non-working groups.
- Information on chronic disease was available for 15 surveys conducted on alternate weeks starting from 09 June, until 30 Dec 2020.
- Data on respondents' socioeconomic characteristics, including age, occupation, education level, and household incomes were collected.
- Respondents were at least 18 years old and able to speak Cantonese Chinese or English.
- Adopted survey methods described in Cowling B et al. (2020) study

Data Analysis

- Data were presented as a number (proportion) for categorical variables (e.g., access to health facility; diagnosed or hospitalized with COVID-19, loss of job or income) and a mean (SD) for normally distributed continuous variables (e.g., age).
- A threshold of HK\$10,000, based on the poverty line for a 2-person household suggested by the Hong Kong Census and Statistics Department was applied to indicate those of lower relative income in their sampled population.
- We constructed two multivariate logistic regression models:
 - 1) The “difficulty in accessing health care or medications” model was adjusted for demographic variables; chronic conditions ; financial support from government , loss of job, and loss of income during the COVID-19 lockdowns.
 - 2) The “worsening diabetes symptoms” was adjusted for demographic variables; chronic conditions , financial support from the government, loss of job, and loss of income during the COVID-19 lockdowns.

APRU Global Health Conference 2021

GLOBAL URBAN HEALTH

16-18 November 2021
The University of Hong Kong, Pokfulam, Hong Kong

Abstract No. 36 The Indirect Impact of COVID-19 Pandemic on Chronic Disease Care in Hong Kong

Results

	Hong Kong (N=427) OR (95% CI)
Age Group	
< 45	-
45 -55	1.000
56-65	1.18 (0.22, 6.25)
66-75	0.50 (0.08, 2.95)
75+	0.62 (0.08, 4.60)
Male	0.66 (0.21, 1.96)
Place of Residence	
Rural	-
Urban	-
Education	
Below primary	
Primary	0.36 (0.05, 2.44)
Secondary	0.26 (0.03, 2.20)
College and above	0.21 (0.02, 1.81)
Change in Economic Status (%)	
No change	1.0
Worsened	1.39 (0.45, 4.31)
Household Income	
Below threshold	1.000
Above threshold	0.48 (0.19, 1.23)
Glucose monitoring frequency	
No	
1+ times/day	
1+ times/week	
1+times/month	
Less than once/month	
Fasting Blood Sugar Monitoring (%)	
Hypertension	
Blood Pressure Monitoring	
Received government financial support	0.55 (0.14, 2.17)

Table 1: COVID-19 and Chronic Disease

	Hong Kong (N=1828) OR (95% CI)
Age Group	
< 45	1.000
45 -55	1.49 (0.74, 3.01)
56-65	0.46 (0.21, 1.00)
66-75	0.56 (0.26, 1.21)
75+	0.40 (0.16, 0.98)
Male	0.60 (0.38, 0.94)
Place of Residence	
Rural	
Urban	
Education	
Below primary	1.00
Primary	0.83 (0.31, 2.20)
Secondary	0.57 (0.21, 1.56)
College and above	0.56 (0.19, 1.65)
Change in Economic Status	
Worsened	1.13 (0.69, 1.83)
No change	1.000
Household Income	
Below threshold	1.0
Above threshold	1.16 (0.73, 1.84)
Diabetes Mellitus	0.74 (0.43, 1.25)
Received government financial support	0.91 (0.53, 1.54)
Experienced loss of job during this pandemic in the family	

Table 2: Factors associated with difficulty in accessing care or medications for chronic disease during COVID-19 (due to COVID-19 situation or financial reasons)

- Among participants with chronic disease, 11% reported difficulty accessing treatment and 9% experienced worsening chronic disease symptoms.
- Older age groups were less likely to experience difficulty in accessing care or medications during the COVID-19 pandemic (OR 0.40, 95% CI: 0.16, 0.98).
- Loss of income (OR 1.13, 95% CI: 0.69-1.83) and low household income (OR 1.16, 95% CI: 0.73, 1.84) was associated with increased difficulty in accessing care
- Receiving government financial support seemed to be protective (OR 0.90, 95% CI: 0.5-1.5).

Conclusion

- Younger (working age) people were more likely to report difficulty in accessing care demonstrating the widespread impact of the pandemic and control measures beyond traditionally vulnerable groups.

We would like to acknowledge Dr. Karen Eggleston for her assistance in this study.