

Characterizing the Health Burden of Multiple Chronic Conditions among Residents in New York City

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Background

- Multiple Chronic Conditions (MCCs) are defined as the **co-existence of two or more chronic conditions** within an individual.¹
- Nearly **51.4%** of the U.S. population (nearly 130 million people) were affected by MCCs between 2013 and 2023.
- Data on the prevalence of MCCs in New York City (NYC) are outdated and lack disaggregation.**

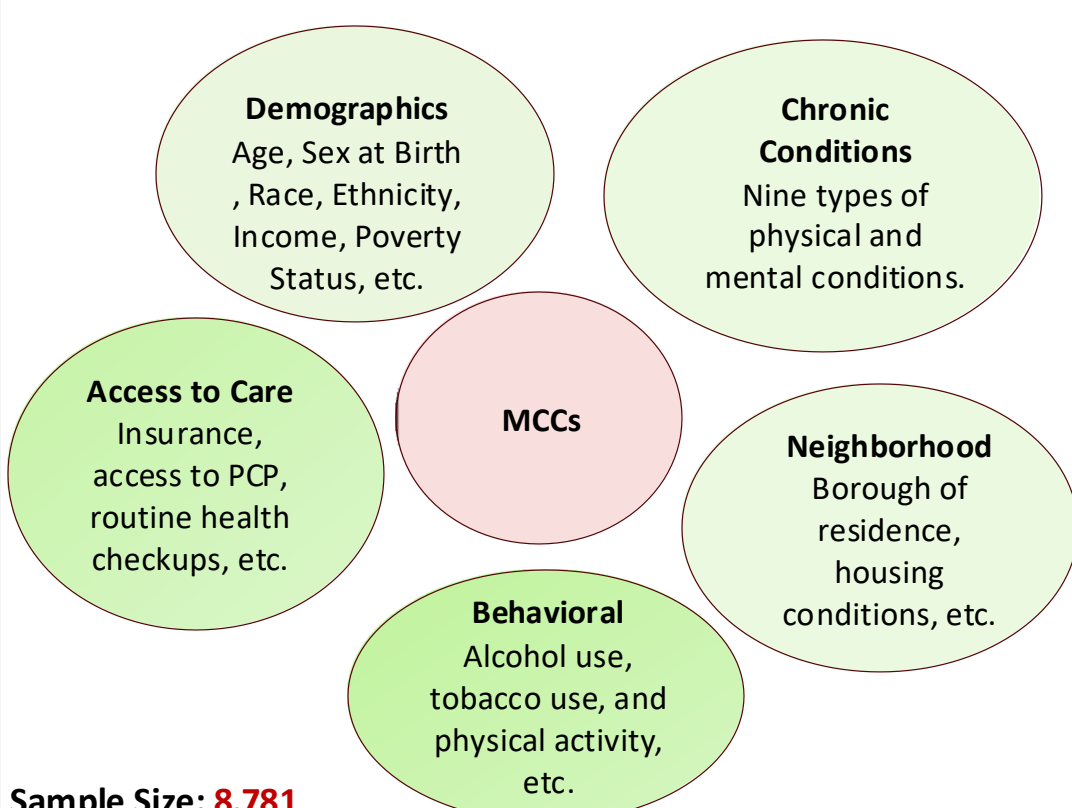
Aims

- Aim 1:** To estimate the **overall prevalence of MCCs** among NYC residents.
- Aim 2:** To characterize the **most prevalent combinations of two (dyad) or three and more (triad) chronic conditions** and the co-occurrence of physical chronic conditions and mental health problems.
- Aim 3:** To **identify subpopulations disproportionately affected by MCCs** based on age, sex, race/ethnicity, borough of residence, and socioeconomic status (income and poverty).

Design

- Secondary Data Analysis** of the 2020 New York City Community Health Survey (CHS) Dataset
- CHS is an **annual, telephone-based, cross-sectional survey** of approximately 10,000 randomly selected adults (18+) from all 5 NYC boroughs.
- In this study, we will leverage the **most recent 2020 data** to characterize MCCs among NYC residents.

Data



Preliminary Findings*

Table 1. Sample Characteristics (N = 8,781)

	n	%
Age Groups		
18-24	706	8.04%
25-44	3,189	36.32%
45-64	2,951	33.61%
65+	1,921	21.88%
Refuse to say	14	0.16%
Sex at Birth		
Female	4,902	55.83%
Male	3,850	43.84%
Race/Ethnicity		
White, non-Hispanic	2,736	31.16%
Hispanic	2,457	27.98%
Black, non-Hispanic	1,837	20.92%
Asian/Pacific Islander, non-Hispanic	1,340	15.26%
Middle Eastern/North African, non-Hispanic	96	1.09%
Others, non-Hispanic	288	3.28%
Insurance Coverage		
Having Insurance	7,599	86.54%
Private	3,803	43.31%
Medicare	1,504	17.13%
Medicaid	1,953	22.24%
Others	339	3.86%
No Insurance	930	10.59%
Don't know/refuse to say	224	2.55%
Missing	28	0.32%
Did Not Receive Needed Medicare		
Yes	1,047	11.92%
No	7,686	87.53%
Don't know/refuse to say	48	0.54%

Note: * Preliminary results rely on publicly available data covering only four chronic diseases. More information on additional conditions are being obtained and may lead to different findings.

Preliminary Findings*

Table 2. Prevalence of MCCs among NYC residents (N = 8,781)

	n	%
Having at least 1 Chronic Condition	4,422	50.35%
Having Hypertension	2,596	29.56%
Having Mental Health Conditions	1,408	16.03%
Having Asthma	1,259	14.34%
Having T2D	1,088	12.39%
Having at least 2 Chronic Conditions	1,510	17.20%
Hypertension + T2D	475	5.41%
Hypertension + Mental Health Conditions	219	2.49%
Hypertension + Asthma	201	2.29%
Asthma + Mental Health Conditions	172	1.96%
T2D + Mental Health Conditions	41	0.47%
T2D + Asthma	36	0.41%
Having at least 3 Chronic Conditions	366	4.16%
Hypertension + T2D + Asthma	115	1.31%
Hypertension + Asthma + Mental Health Conditions	94	1.07%
Hypertension + T2D + Mental Health Conditions	85	0.97%
T2D + Asthma + Mental Health Conditions	17	0.19%
Having 4 Chronic Conditions		
Hypertension + T2D + Asthma + Mental Health Conditions	53	0.60%

Note: * Preliminary results rely on publicly available data covering only four chronic diseases. More information on additional conditions are being obtained and may lead to different findings.

Research Progress

- In progress: Obtaining more thorough and disaggregated data (additional conditions, detailed racial/ethnic subgroups, borough-level data; currently undergoing data use agreement with NYC Department of Health and Mental Hygiene).

Institutions

Lead Institution:

- NYU Grossman School of Medicine, NYU Langone Health

Supporting Centers:

- Rutgers-NYU Center for Asian Health Promotion and Equity (CAHPE)
- New York City Department of Health and Mental Hygiene

Potential Impacts

- The findings will provide timely, disaggregated evidence to **inform tailored interventions** and **support resource allocation for chronic disease management** across NYC communities.