



# 19 and Me: Mathematica's Evidence-Based Approach to Assessing COVID-19 Risk

As the COVID-19 pandemic continues to evolve, 19 and Me applies Mathematica's knowledge and experience at the intersection of data, analytics, policy, and practice to help decision makers plan an effective and equitable response to COVID-19 in their communities and workplaces. With 19 and Me, workforce leaders can make informed decisions on returning to the office.

19 and Me uses data on reported cases from various geographic areas, demographics, and social behaviors to quantify a person's risk for contracting COVID-19. The model behind 19 and Me that produces the risk score draws on the latest peer-reviewed evidence, and our experts continually [refine and update](#) the underlying methodology to ensure our model stays current as the pandemic evolves. Workforce leaders who use 19 and Me to inform evidence-based return-to-work decisions can be confident that the scientific methodology used in 19 and Me is current, rigorous, and complete. Key components include:

- / Evidence-based and timely inputs
- / Blockchain-based geographical risk calculation
- / Personalized risk scores to inform the safest return to work policy
- / Seamless integration thru Application Programming Interface

Mathematica's 19 and Me tool is helping a host of entities, both locally and around the world, make evidence-based return-to-work decisions. Let 19 and Me help your organization today!

**19 and Me: COVID-19 Risk Score Calculator**

Introduction

1. About You

What is your 5-digit zip code?

What is your age?

What sex were you assigned at birth?

Male  Female  Other  Prefer not to say

Next

2. Pre-existing Conditions

3. Your Behavior

Direct exposure: how many people (include your household members) do you come into close contact (10-150 mins, 6 feet) with in a week?

I live with other people.

Indirect exposure: how many people in total do your other household members come into close contact with in a week? (Do not include yourself in this count.)

I perform hand hygiene according to CDC guidance.

I wear personal protection equipment consistent with CDC guidance.

Calculate

Score Method FAQ

The risk score for people with similar characteristics and behaviors as you is

39

0 100

We found data from Norfolk County, MA for your zip code. As of 10/25/2020, this county had 706 new reported cases in the last 14 days and 19,982 total reported cases of COVID-19. Many people who contract COVID-19 are not tested, and therefore not reported. We estimate that your county has an under-reporting factor of 3.3x. Taking into account the under-reporting factor, incubation period, and time from symptom onset to recovery, we estimate there are 2,328 total sick people distributed throughout the county, including those who are not officially reported.

Among people who are the same health status as you and have behaviors and levels of interaction with others that are similar to yours, the estimated probability of catching COVID-19 through community transmission in a week is 0.055%. For comparison, 0.41% of Americans catch the flu every week during flu season.

Among people who are the same age, sex, and health status as you and get sick from COVID-19, the risk of hospitalization is 2.1%, the risk of requiring an ICU is 0.51%, and the risk of not surviving is 0.056%.

Good to know you wash your hands per CDC guidance. In general, this lowers people's risk of being exposed to COVID-19 by 55%. Good to know you wear personal protection equipment per CDC guidelines. In general, this lowers people's risk of being exposed to COVID-19 by 68%.

The risk score for people with similar characteristics and behaviors as you is 39. Please take the time to review this page to make sure you're well prepared in the days to come.

**Let's Progress Together.** Contact Andrew Hurwitz at [ahurwitz@mathematica-mpr.com](mailto:ahurwitz@mathematica-mpr.com) or Laura Kovach at [lkovach@mathematica-mpr.com](mailto:lkovach@mathematica-mpr.com) for more information about Mathematica's digital solutions and services.

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