

Sweden’s Covid-19 Response Plan Objective Facts - You Decide

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ABSTRACT

The two opposing news media poles, which comprise most of the news media, have taken sides on Sweden’s Covid-19 response plan. There have been articles stating how poorly Sweden is doing compared to everyone else and that they’re killing their own citizens or that they don’t care about their elderly. And there have been articles on how well they’re doing and how free they are to roam about.

This paper intends to demonstrate, through citation and compilation of pertinent, objective facts, how Sweden compares to an equivalent population and aggregation density in the United States. Part of New England was chosen. Connecticut was discounted because of the proximity to New York City (NYC). There needs to be a rural or light suburban buffer from NYC, the center of the pandemic. Rhode Island is too small an area and the density didn’t quite fit the comparison when Rhode Island was included.

Massachusetts (MA), New Hampshire (NH), Vermont (VT), and Maine (ME) together nearly match the population of Sweden and nearly match the aggregate density in urban areas ranked by population. MA, NH, VT, and ME will be collectively named “MA-NH-VT-ME” in this paper.

INTRODUCTION

Sweden has adopted very relaxed mitigation measures in response to the Covid-19 pandemic. Most of the states in the United States of America have adopted very stringent measures in response to the Covid-19 pandemic.

MA-NH-VT-ME will be compared with Sweden.

SIZE & DENSITY

In this comparison, equality is impossible. Equivalence is the best possible objective. Data is objectively provided in the table below and subjective selection process described thereafter.

	Sweden	MA-NH-VT-ME
Total Population	10,333,456	10,267,285
Area (sq mi)	173,860	64,915
Top 10 urban populations		
	1,515,017	679,413
	599,011	185,195
	316,588	154,596
	160,462	115,665
	122,953	111,657
	120,650	111,249
	111,267	95,426
	109,869	95,117
	96,996	88,606
	96,766	66,735

Table data from [wikipedia.com](https://www.wikipedia.com)

There is no way to equally compare areas. People aggregate differently because of natural land barriers such as water, mountains, and deserts, because of economic factors such as the cost of fuel, and because of infrastructure resources such as ports, railways, and automobile transportation

routes. Culture is both cause and effect regarding aggregation in locations of disparate availabilities of resources and conditions.

In pursuit of objectivity, notwithstanding the author’s bias, the fact that Sweden and most European countries aggregate differently than the United States is taken into consideration. The phenomenon of sprawling suburbs is almost exclusively American and certainly presents in MA-NH-VT-ME. However, it is known that epidemics spread more easily in dense urban areas such as those in Sweden. Nonetheless, there was a concerted effort to find the best comparison to Sweden in living density and urban culture.

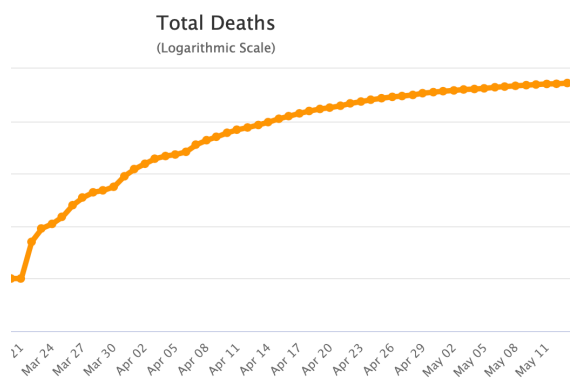
MORTALITY COMPARISON

The following table is populated from data available May 13, 2020 at 2300 hours EDT, USA.

	Sweden	MA-NH-VT-ME
Covid-19 Deaths	3,460	5,584
Deaths per million	335	544

Table data from worldometers.com

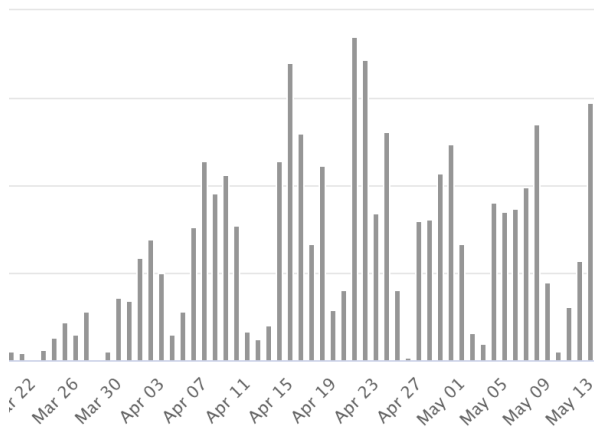
The stage of pandemic in each location is important to understand. The numbers may not be representative of results if one area is on an upswing and the other area is on a downswing. Thus, a trend analysis is objectively considered.



Screenshot from worldometers.com

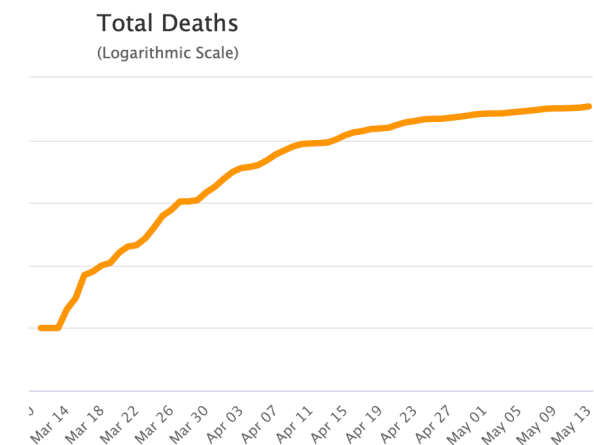
The above log scale graph of total deaths in Sweden from March 21 to May 13, 2020 shows that total deaths have leveled off as a trend.

The daily new deaths in Sweden chart below, though erratic on a per day basis, also shows a trend that Sweden has crested and is on the downside of the curve already.



Screenshot from worldometers.com

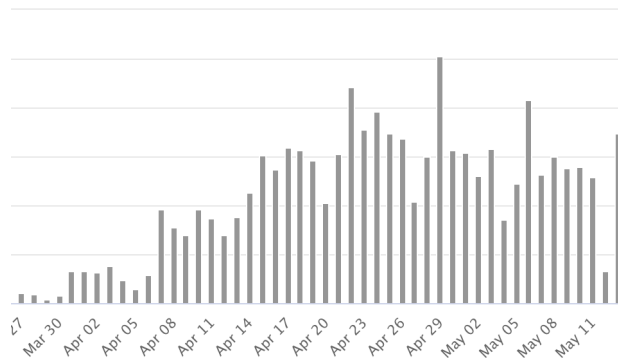
For expediency, the comparison will be made with Massachusetts (MA) only because the data is readily available. MA includes nearly 68% of the population and more than 95% of the deaths in the aggregate group MA-NH-VT-ME. Thus, the trend in MA will be the dominant trend in the group as well. There aren’t enough people in the non-MA portion of the group to affect the trend even if there were several outbreaks in NH, VT, ME.



Screenshot from worldometers.com

The above log scale of total deaths in MA , March 14 to May 13, 2020, demonstrates equivalent trending with Sweden.

The trend of daily new deaths in MA in the chart below, March 27 to May 13, 2020, also shows that MA has crested and is beginning a downswing, equivalent to Sweden.



Screenshot from worldometers.com

An objective assessment, based on the data, clearly shows that MA and Sweden are on equivalent trends during the same time period.

RULES COMPARISON

The following rules have been taken from official government websites for both MA and Sweden (SW). See *REFERENCES* for links to sites.

Gatherings

SW-no more than 50 (no concerts, theatre performances, demonstrations)
MA-no more than 10 in a group

Non-Essential Businesses

SW-Remain open (bars, pubs, restaurants, nightclubs, casinos, et al remain open. Practice arm’s length rule and 50 person rule)
MA-All non-essential businesses shall remain closed to workers and customers. Places of worship may open but must comply with 10-person rule. Restaurants may offer take-out or delivery.

Outdoor Gatherings

SW-No more than 50 in a group
MA-10-person rule does NOT apply to unenclosed outdoor space such as a park, athletic field, or parking lot.

Face Masks

SW-Not needed in community
MA- As of May 6, 2020, all persons age 2 or older must wear face masks in any location where social distancing of 6 feet is not possible. Must be worn in all public transportation and livery.

Social Distancing Rule

SW-arm’s length
MA-6 feet

K-12 Schools

SW-Open (important to be in presence of teachers)
MA-Closed (online learning)

Universities

SW-Online learning encouraged (students should be self-directed)
MA-Campuses closed. Online learning only

Athletics

SW-no limitations
MA-athletic and recreational activities that bring people in close physical contact of others is prohibited regardless of number of people.

With the exception of the May 6 mask order from Governor Baker, all other rules from both locations were put in place in March and have been in place since then.

Additional pertinent notes from Sweden’s Ministry of Health and Social Affairs are:

- “If you feel ill with symptoms ... avoid contact with other people. Do not go to work or to school.”
- We advise you to work from home if possible and if your employer allows it.
- Stay home as long as you feel ill, then two days longer.

- Self-Regulation is promoted.
- The regulations are meant to decrease transmission, not to prevent restaurants and pubs from operating.
- If self-regulation is not working in a given establishment, the government may shut it down.
- Children only get very mild symptoms, if any at all and they are at a very low risk of anything serious.
- Self-serving buffets will continue to be allowed as long as people do not crowd while queueing.

CONCLUSION

Sweden has adopted a very different Covid-19 response plan than MA and most of the American states.

Sweden remains mostly open and has instituted guidelines for the public to conduct themselves in accordance with relatively non-intrusive protections and slight lifestyle changes.

On the other hand, the United States has adopted stringent mechanisms of shutdown by executive order and punishment of fines and jail in some cases.

Summarizing the efficacy of the two approaches is difficult because there seems to be little difference in the outcome of deaths from Covid-19. Both Sweden and MA encountered Covid-19 around the same time. Both have followed the same growth and leveling in mortality.

Nothing can be proven outright. The path not taken cannot be reset back to the decision point in time. However, the data and evidence strongly support the Swedish model of freedom and the government's belief in the responsible behavior of its citizens.

Lastly, the follow-up to this paper could be a research paper on the efficacy of herd immunity due to "Recovered" group herds and diminished "Susceptible" and "Infectious" groups. Many

believe that Sweden is approaching herd immunity already and may reach it in the next 4 weeks. That would mean that they are not capable of having any major outbreaks or high death counts. Time will tell.

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