

ML - Covid-19 Vaccine Priority Tracker Action Plan

Idea to suggest what locations should receive better resources/priority access to COVID-19 vaccine (sourced by any company) for booking based on the speed @ people in that province are getting fully vaccinated.

Edits were made/replaced
GitHub: [Implementation](#)

Implementation Use lines of best fit & the intersection points to make predictions for which areas deserve priority.

Algorithm - linear regression

- calculates average slope of each output to the original input (different colour)

Data Collection

vaccinations over time for { different ages (Canada, Alberta, nation ally, provincially) different zones }

Vaccination rates over time for each province.

Based on percenta & single net number of people.

Projected: How it works

1. Vaccine percentage is graphed against time.
2. Different lines of best fit correspond to different age/zone categories
3. Program will interpret intersection points of different slope lines & suggest what ages/zones in Alberta should have improved exposure to vaccine rollout

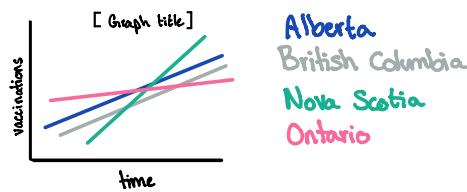
Intersections

x-value of intersection points indicate time

@ which vaccination percentages are the same. Based on when each province started vaccinating, each province has a particular 'stopcheck' for % vaccinations that they should meet. That time gets compared to the current time of the intersection point, & a suggestion is made to the government to send more vaccines/resources to that province.

At 30 days, amount of vaccines each province has should be checked. At 60 days, vaccinated % should be the same.
→ 50% population vaccinated in 90 days

Sample Graph



Alberta
British Columbia
Nova Scotia
Ontario

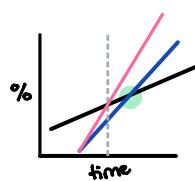
Specifics

Intersection point x-value > stopcheck value

Increase vaccine resources for

province w/ initially lower values

→ change slope w/o changing intercept

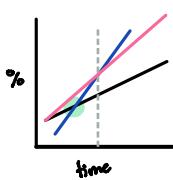


Intersection points:
Vaccine %'s are same
for relevant provinces @
specific times.

Intersection point x-value < stopcheck value

Increase vaccine resources for

province w/ initially higher values

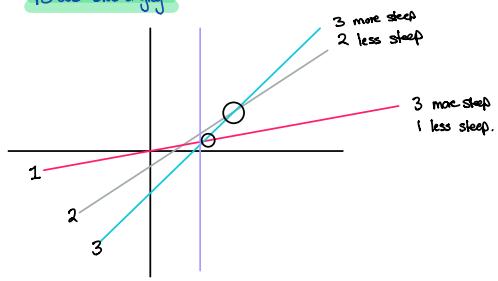


Considerations

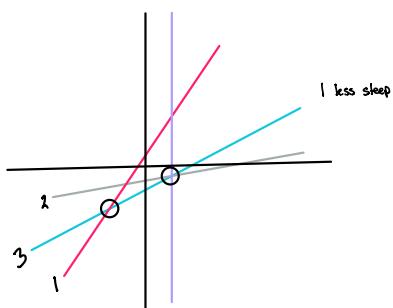
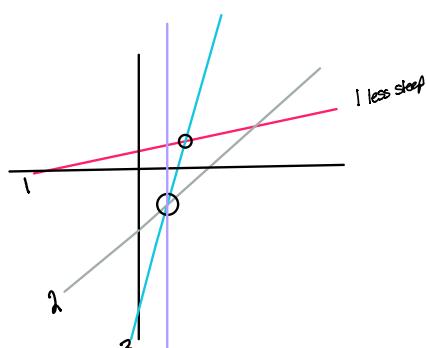
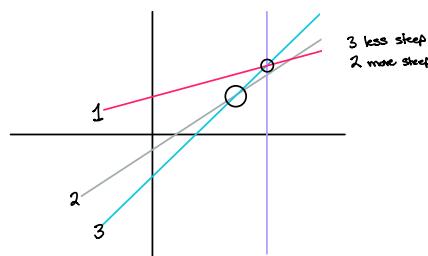
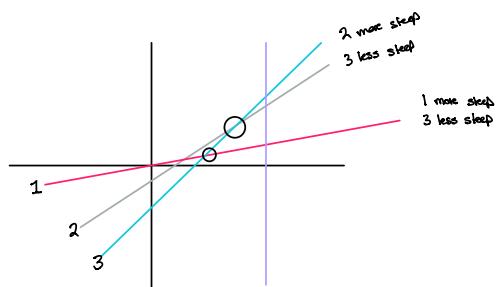
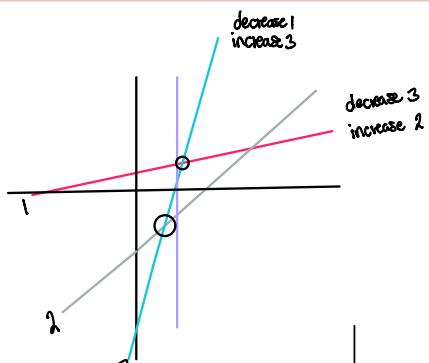
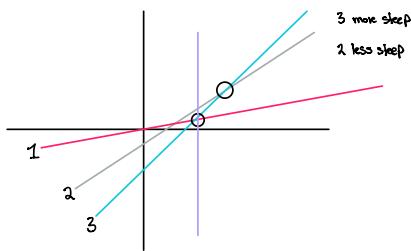
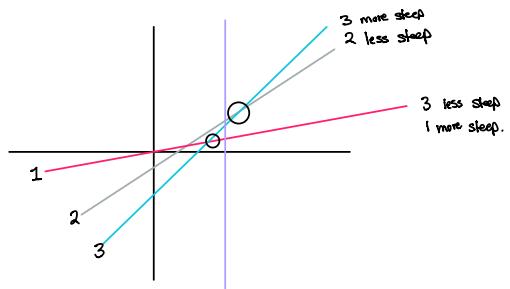
For every comparison, you can suggest to make trendline 1 more steep or trendline 2 less steep. Consider how to decide suggestion to make.

Analysis Comparisons Proofs

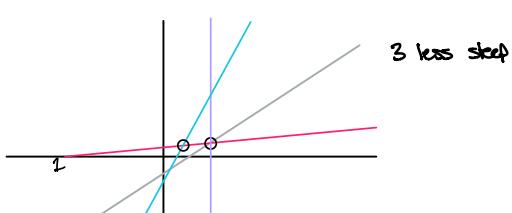
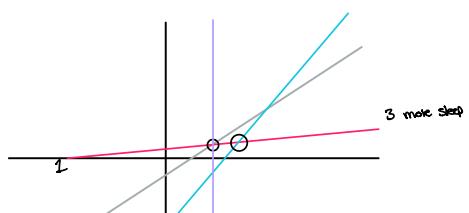
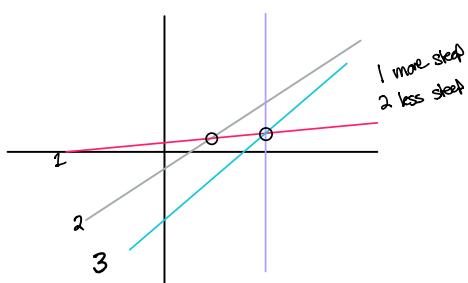
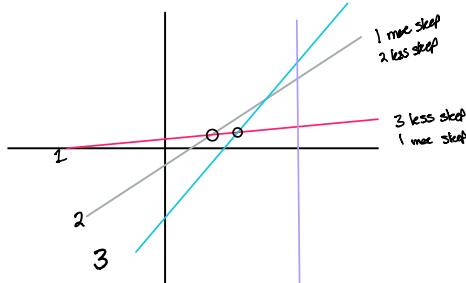
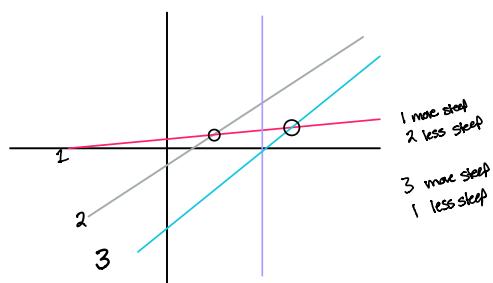
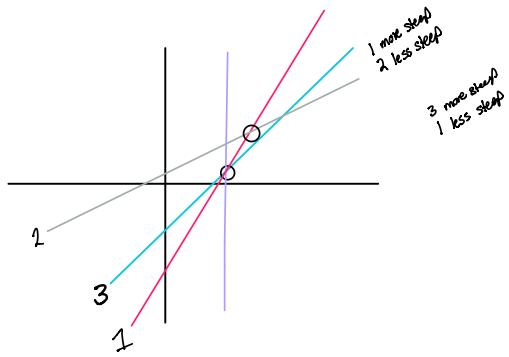
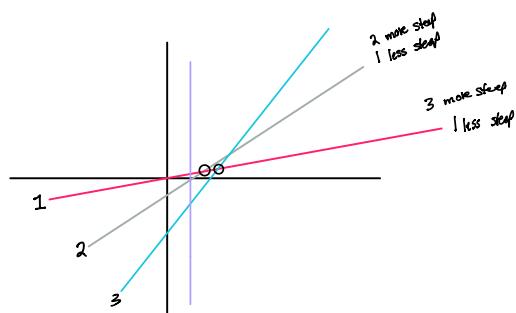
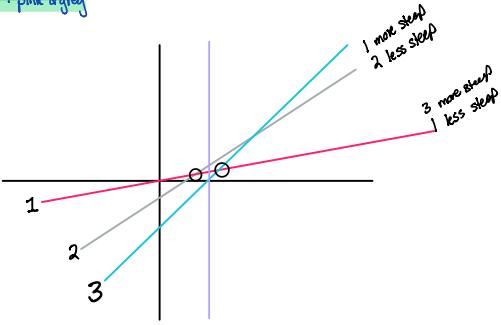
Focus: blue & gray



- - intersection points
- - target line
- 1 - Nunavut
- 2 - Northwest Territories
- 3 - Yukon



Faults : pink & grey





Facts: pink & blue

