Pandemic Sim Game High Concept

# Game Concept

* Main Goal
  + Use the resources at the player’s disposal to identify a pathogen and formulate a response to contain the threat
* Role-Based Gameplay
  + Each scenario will allow for several different “roles” that players can take on one or more of during the game
    - Ex. Director of Transportation, Head of Vaccine Research, Public Relations Manager
  + Each role will have certain actions they can take each round in order to work towards the goal
    - Ex. Limiting/closing bus routes, researching certain info about the virus, running ad campaigns
* Limited Resources per Round
  + Each action the player takes will cost a certain amount of resources (time, money, personnel, etc.)
  + These resources will get replenished at the start of each round
  + Some actions may affect how many resources the player has
    - Ex. Higher infection rate may leave players with less resources the next round, but spending time hiring new employees on one round may boost resources in the next round
* Modifiers/Controlling the game
  + Info-cards
  + Random events
  + Can be generated by AI or manually by someone facilitating the game
    - Game can be run either with or without a facilitator
* Training/teaching moments
  + Once certain milestones in the game are met (good or bad), the game can offer teachable moments based on the player’s decisions
    - Ex. “You’ve filled 80% of your country’s hospitals within 3 months! Here are the choices that led to that outcome, and how it might be avoided”
* Tracking Data
  + Each scenario/role will track the choices made by the players, and convert it into readable data both during the game and in retrospective.
* Modularity in mind
  + Roles and scenarios are designed to be added and removed from the game at will, so each simulation can be fully customized to whatever level of specificity is desired.
  + Ideally, multiple scenarios and simulations would eventually be able to all run simultaneously so the effects of a choice within one scenario could be seen in a completely different one.

# Example Scenario and Roles

* Scenario: Covid-19 is emerging as a dangerous pathogen, and has only just become known as a threat to the public. The disease has been identified, but no cure or vaccine has been created yet.
* Players must formulate a plan to contain the pathogen, while still keeping the public calm and informed, lest they begin to ignore mandates that are passed.
* Roles
  + Hospital Director
    - Can make decisions on managing hospital capacity, work time and number of employees, and admission restrictions, as well as sanitation mandates
    - Their decisions can affect the recovery rate, transmission rate, and capacity of hospitals
  + R&D Manager
    - Can make decisions on researching and developing vaccines or other treatments, researching more about the pathogen and how it is transmitted, as well as the production and distribution of tests
    - Their decisions can affect the testing rate and transmission rate, depending on how much progress they make into developing and distributing tests/vaccines, as well as the false positive/negative rate if they spend resources researching the pathogen
  + PR Manager
    - Can make decisions that will affect public perception of the pandemic, like running informational ad campaigns, encouraging masking/social distancing/testing, and keeping the public informed about research progress or hospital capacity
    - Their decisions can affect the transmission rate across those that are exposed, symptomatic, and asymptomatic, as an informed but calm population will transmit the disease less, but an uninformed or rebellious population will likely not take precautions and spread the disease more.