Algorithmic description of a percolation model of diseasepropagation

```
N <= 130                                        {Population=N^2}
                                                {Immunize a randomly chosen fraction of the
population}
for i = 1 to N do
    for j = 1 to N do
        Choose a random number r
        if r < x then
            immunize person P[i][j]
        end if
    end for
end for
Select a person at random and infect them
                                                {Now let the disease propagate}
While number of infected people increase do
   for  i = 1 to N do
      for  j = 1 to N do
         if  P[i][j] is infected then
             infect all unimmunized neighbors
         end if
      end for
   end for
end while
Output coordinates of immunized people
Output coordinates of uninfected people
Output coordinates of infected people
```