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Seven Hills College of Pharmacy, Tirupati, Andhra Pradesh.
In association with Sri Padmavathi Medical College for Women, Alipiri Road, Tirupati, Chittoor (Dist.,), Andhra Pradesh, India.
www.shcptirupati.com
shcpdic333@gmail.com

Phone: 7730084513, 7702484513

VISION

To emerge as one of the premier pharmacy colleges in the country and produce pharmacy professional of global standards.

MISSION

- To deliver quality academic programs in Pharmacy and empower the students to meet industrial standards.
- To build student community with high ethical standards to undertake R&D in thrust areas of national and international standards.
- To extend viable outreach programs for the health care need of the society.
- To develop industry institute interaction and foster entrepreneurial spirit among the graduates

Herd Immunity

Dr Abitha Saju

Herd immunity is the resistance to the spread of a contagious disease with in a population that results if a sufficiently high proportion of individuals are immune to the disease especially through vaccination.

History

1st recognized as a naturally occurring phenomenon in the 1930's when A.W Hedrich published research on the epidemiology of measles in Baltimore and took notice that after many children had become immune to measles, the number of new infections temporarily decreased, including among susceptible children.

How is it working?

When a new disease emerges and starts infecting people in a population, the no of individual each infectious person generates can vary for different disease and we call the number the Basic Reproduction Number or R0

In any given population there are 3 groups of people to any specific disease causing organisms

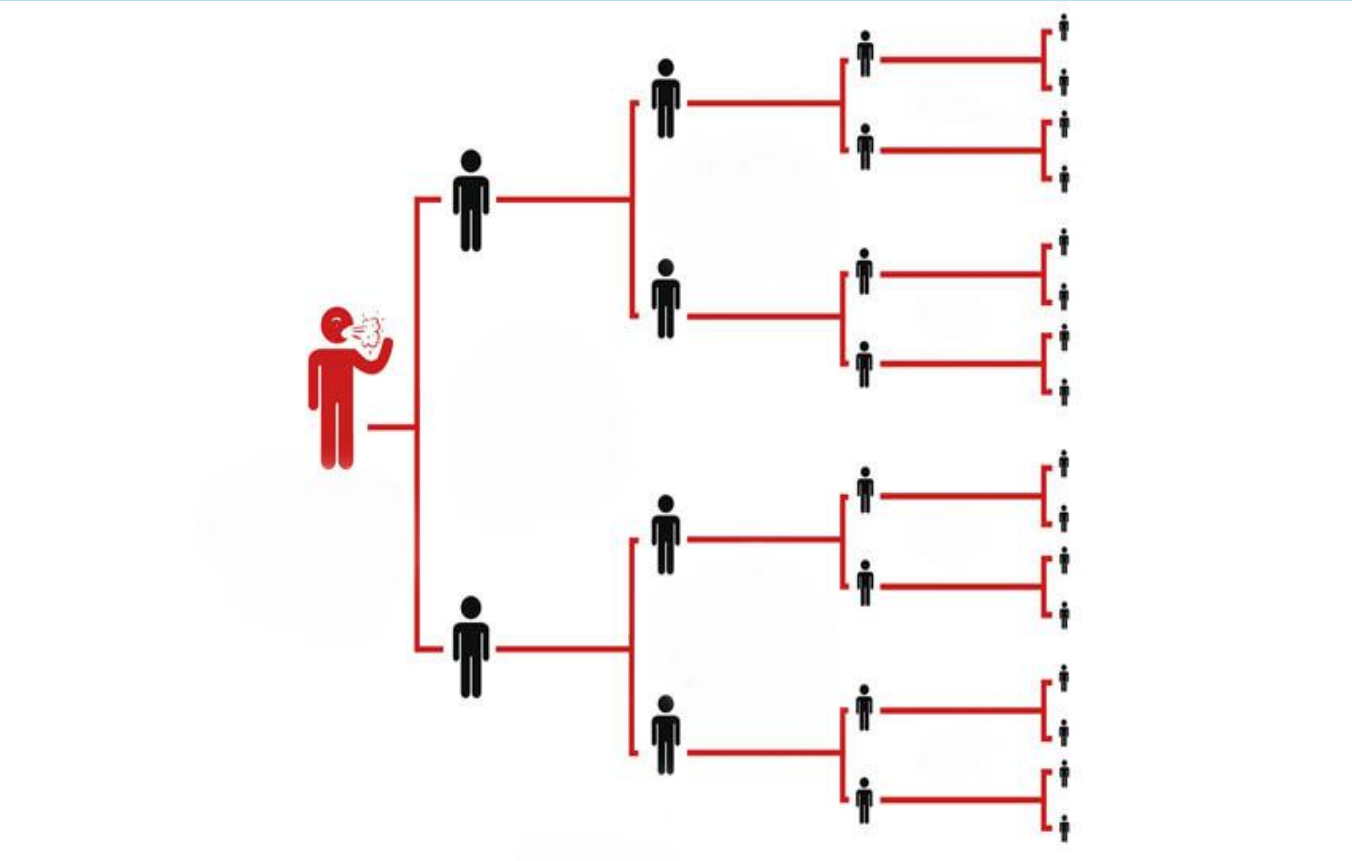
1 infected people
2 susceptible individual
3 immune people

The infected persons become contagious (capable of spreading the disease to others). Then the infected individual comes in to contact with few individuals who does not have the disease and is not immune to it either.

When the exposure occurs the person now has the organism in their system

This person can go on to expose other healthy or susceptible persons to the infections disease. That person then becomes sick and infections and the process continuous on and on

In this way the disease causing organism quickly moves on through the population creating a chain of infection.

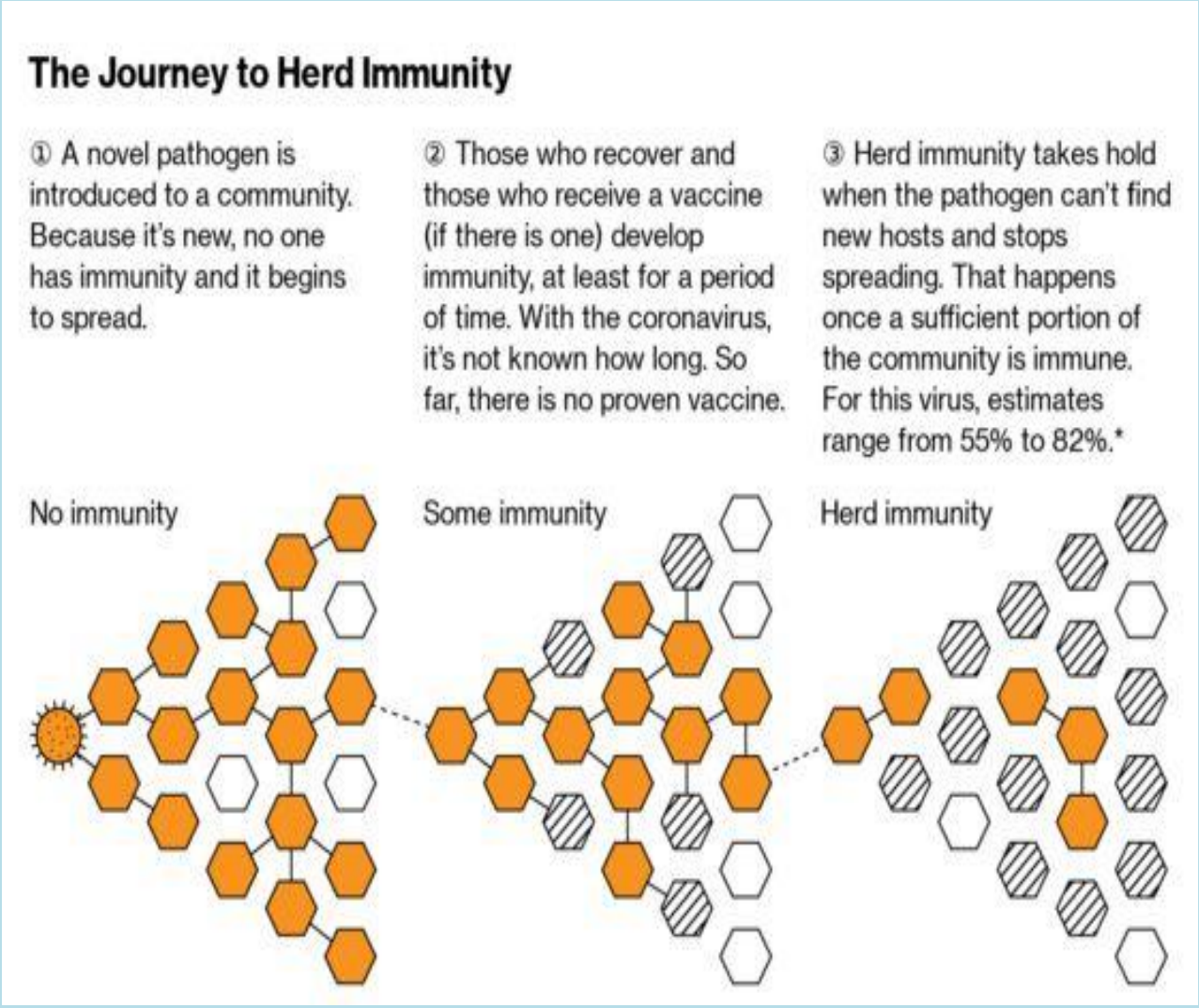


The point of a medical intervention is to prevent such chains of infection. In order to accomplish this, let's starts with the first person who was able to pass the disease causing organism on to a new susceptible person.

The second person is now sick and is capable of passing the disease on to another.

However in this case the next individual in the chain is already immune to this particular infections organism. Immunity to this particular patient result either from vaccination or from natural immunity against this particular organism.

At this point the chain of infection is broken and no more people are exposed or became sick. In other words no epidemic occurs.

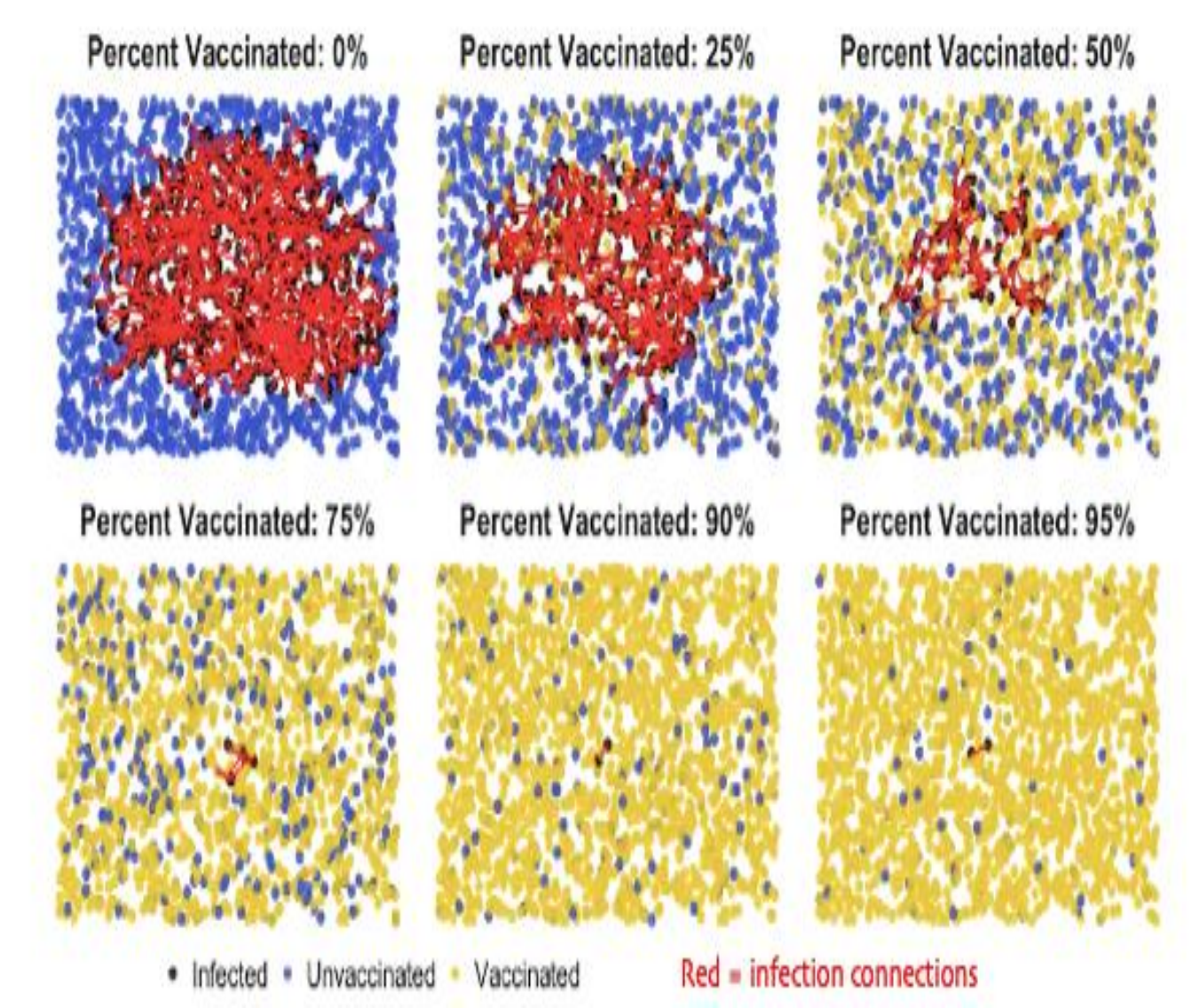


Herd immunity occurs when significant proportion of the population or the herd have been vaccinated or are immune by some other mechanism resulting in protection for susceptible individuals

Thus achieving her immunity will help to stop the spread of a very serious spread of a contagious disease to spreads widely.

Not only safeguard a particular susceptible individual but also the individuals who came in contact with him. Which means he act as a wall against the organism from spreading.

Thus the number of persons who gets the disease is reduced, thereby reducing wide spread of a contagious disease spread within a community.



Conclusion

Thus immunizing individuals in a population which is under an attack of an infectious disease for more than 75% will result in reducing number of individuals affected by the disease. Herd immunity is especially important for individuals in the community, who can't be vaccinated, like pediatrics, geriatrics, persons with weak immune system. These groups can be protected from a contagious disease, if the individuals around them are vaccinated.