

Monkey Pox and The Mathematics of Disease

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ABSTRACT

In this paper, we show that Monkey Pox has reached the threshold of unstoppable transmission in the US with a transmission rate of 81% increase in one week. The virus will go through the entire unvaccinated population in weeks.

KEYWORDS: Monkey pox; Contagions; Mathematics of disease; Epidemiology

INTRODUCTION

According to CNN on August 3rd, 2022, the rate of increase of Money Pox in the previous week in the USA is 81%. As we show below, this is the rate that causes unstoppable spread of a virus, including Monkey Pox. As of Tuesday, there were 6,326 reported

cases of monkeypox, an 81% increase from a week before, according to data from the US Centers for Disease Control and Prevention. Source: Some lab techs refuse to take blood from possible monkeypox patients, raising concerns about stigma and testing delays, CNN (Figure 1).

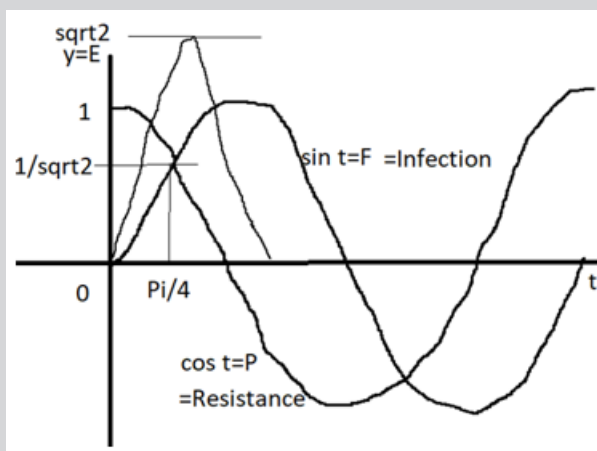


Figure 1: Infection vs Disease Resistance (sine and cosine curves).

$$\begin{aligned}
 \text{Infection} &= \sin \\
 d/dt \sin \theta &= +81\% \\
 \cos \theta &= 0.81 \\
 \theta &= 35.9^\circ = 0.6266 \text{ rads}
 \end{aligned}$$

$$\begin{aligned}
 \text{Resistance} &= 1 - 0.6266 = 0.373 = 1/2.678 \approx 1/SF = E \\
 \text{Infection} &= \sin \theta = 0.81 \\
 \theta &= 54.09^\circ = 0.94415 \text{ rads} \\
 t &= \pi/4
 \end{aligned}$$

Quick Response Code:



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$$0.94415-0.7853=0.1587= \text{Moment}$$

$$1-0.1587=0.8412475=57.27^\circ \approx 1 \text{ rad}$$

$$\text{Moment}=F \times d = \text{Work} = E$$

$$E=1$$

$$TE=PE+KE=hv$$

$$=Mc^2+1/2Mc^2$$

$$=6.626 \times (\text{freq})$$

$$=54$$

$$=TE$$

$$v=\text{Freq}=0.81497 \sim 81\%$$

$$\text{Rate} \times t = \text{Rate} \times 1/E =$$

$$=81 / \sqrt{2} = 57.28^\circ = 1 \text{ rad}$$

$$6.626-6.266=0.36=PE$$

$$PE=Mc^2$$

$$36=M(9)$$

$$M=4=|D|$$

Human-to-human transmission is limited, with the longest documented chain of transmission being 6 generations, meaning that the last person to be infected in this chain was 6 links away from the original sick person [1].

$$36/6/6/6/6/6/6=129600 \sim 13$$

$$E^2+E-2=180=Pi \text{ rads (Figure 2)}$$

$$\text{Ln } 1.2345679=0.21072$$

$$3.14159-0.21072=2.9308$$

$$2.9308/6 \text{ days}=0.4885$$

$$0.4885 \times 2.93=1.4316=0.6985 \sim 1/7$$

$$1/0.6985 \times 1.2345679=1.767 \sim 1.77 = \text{Work} = \text{Moment}$$

$$0.695/0.8412=1-\text{sqrt}3$$

$$1-t=t$$

$$2t-1=0$$

$$t=1/2 \text{ GMP } E_{\text{min}}=-.125$$

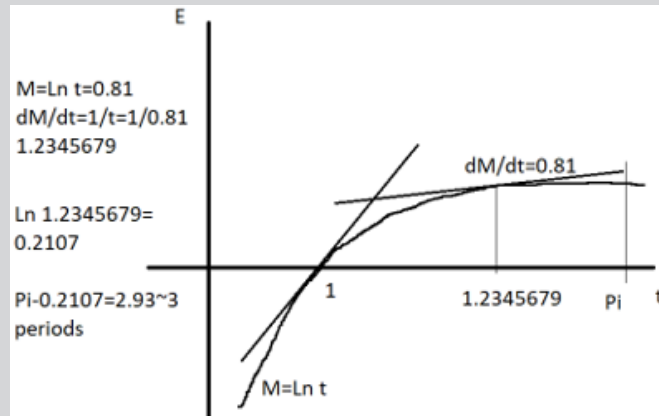


Figure 2: Ln function showing the time to completion (3 periods=3 weeks).

CONCLUSION

At this rate of spread, the virus will go through 84.12% of the unvaccinated population in 7 phases.

REFERENCES

1. Cusack PTE (2017) The robust solution for epidemiology. Clin Med Invest 2(1): 1-2.