

DIRECT VS INDIRECT COST QUARANTINE ON THE HEALTHCARE SYSTEM DUE TO M-POX VIRUS

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INTRODUCTION

the Mpox virus requires isolation and quarantine measures similar to those of other infectious agents. Quarantine is a popular public health intervention often used to curb pandemics involving infectious diseases that threaten to spread across a population. However, the economic implications of enforcing quarantine have sparked debate on its justifiability, particularly with less severe infectious viruses.

OBJECTIVE

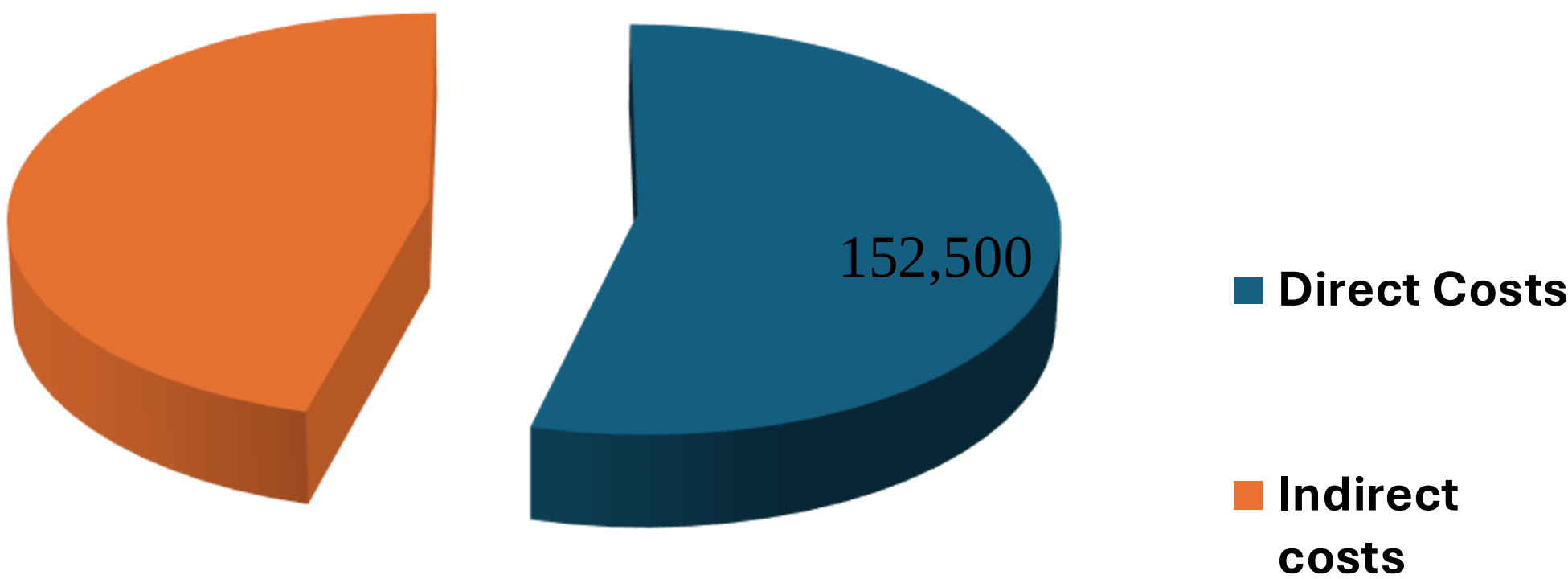
The main objective was to estimate the direct and indirect costs needed to set up a quarantine facility to curb the spread of the Monkey Pox virus.

METHOD

- We simulated a quarantine facility housing 100 Monkey Pox virus patients in Saudi Arabia for the incubation period (14 days)
- The data referenced to estimate the cost of illness for Mpox in this study was from recent a government report on the cost of quarantining COVID-19 patients during the pandemic.
- The study took a societal perspective in which both the direct costs and indirect costs

RESULTS

- The indirect costs of implementing a quarantine are measured in terms of lost productivity after the infected population fails to attend work.
- The World Health Organization (WHO) stated that the Mpox incubation period (i.e., interval from infection to onset of symptoms) is usually from 6 to 13 days. For this research, the study assumed all patients were quarantined for 14 days. ($\delta = 14$ days)
- The daily wage of workers = $\$1,942.5/21$ (average number of working days in a month) $\omega = \$92.5$
- The direct and indirect costs of the quarantine were almost similar, \$152,500 and \$129,500, respectively. This study shows that direct costs can be very minimal relative to indirect costs.
- Most of the direct costs (\$150,000) include accommodation expenses.
- Hence, if a patient were to self-isolate at home, the indirect costs of quarantine would by far surpass the direct costs.



Direct vs Indirect Costs

CONCLUSIONS

- Enforcing quarantine would adversely affect the economy due to job absenteeism.
- Considering that the Monkey Pox virus poses a low risk to the general public and can be cured with no or affordable prescriptions, other strategies such as mass vaccinations, remote working, and routine hygiene practices should instead be used to tame the spread of the virus.
- Instead of quarantine, governments need to focus on mass vaccination programs to curb the spread of the virus. The WHO reports that the smallpox vaccine is 85% effective in preventing Mpox.

REFERENCES

