A Cochrane Rapid Review on International Travel-Related Control Measures to Contain the COVID-19 Pandemic

How effective are different international travel-related control measures in containing the COVID-19 pandemic?

TRAVEL-RELATED CONTROL MEASURES

Countries have implemented various control measures related to international travel.

- Travel restrictions
- Screening at borders
- Quarantine
- Quarantine with screening at borders

FINDINGS

Travel Restrictions: Modelling studies assessed outcomes related to cases avoided and shift in epidemic development. Most studies showed positive effects; however, effect sizes varied, e.g. a reducing cases by 2% or 98% (very low certainty).

Symptom-based border screening: A mix of modelling and observational studies assessed outcomes related to shift in epidemic development and cases detected. All studies showed positive effects; however, effect sizes varied, e.g. detecting 1% or 53% of cases (moderate & very low certainty).

Test-based border screening: A mix of modelling and observational studies assessed outcomes related to cases avoided and cases detected. All studies showed positive effects; however, effect sizes varied, e.g. detecting 58.3% or 90% of cases (very low certainty).

Quarantine: Modelling studies assessed outcomes related to cases avoided, shift in epidemic development and cases detected. All studies showed positive effects; however, effect sizes varied, e.g. reducing cases in the community by 450 or by 64,028 (low and very low certainty).

Quarantine with screening at borders: A mix of modelling and observational studies assessed outcomes related to shift in epidemic development and cases detected. Most studies showed positive effects; however, effect sizes varied, e.g. detecting 41% or 99% of cases (low and very low certainty).

METHODOLOGY

Rapid review of travel-related control measures sought to investigate:

- Effectiveness
- Healthcare Utilization
- Resource Requirements
- Negative effects
- User Acceptance

Studies could include people of any age, anywhere and could be observational or modeling studies.

LIMITATIONS

Most studies based on mathematical prediction rather than real-life data. Widely different methods used across studies. Not all studies peer-reviewed. Very little evidence on non-transmission-related outcomes.

CONCLUSIONS

International travel-related control measures may help limit spread of disease across national borders.

1. International travel restrictions stopping or reducing cross-border travel may help contain the SARS-CoV-2 transmission
2. Screening at borders will detect some cases, but will also miss a meaningful proportion
3. Quarantine, where sufficiently long, will largely avoid further transmission.
4. Effects of measures are likely impacted by other factors (e.g. stage of epidemic, community measures to reduce transmission)