Comparison of strategies for daily surveillance for symptom development among international travellers entering Vanuatu requiring quarantine, October to December 2020

Authors: Williams, Wendy[1]; van Gemert, Caroline[2].
Affiliations: (1) Vanuatu Ministry of Health, (2) Vanuatu Health Program

Background

- Since March 2020, all travellers to Vanuatu must complete 14 days quarantine in a government-designated quarantine facilities to prevent the importation of coronavirus diseases 2019 (COVID-19).
- Public health and nursing staff within SHEFA and other provinces were re-deployed to support the quarantine implementation resulting in closure or delays of some essential health services
- Limited and high demand on public health resources means Vanuatu Ministry of Health have to identify alternate strategies to monitor the health status of people in quarantine
- A short message service (SMS, or "text message") system was developed to identify COVID-19-associated symptoms among travellers in quarantine

Methods

- A trial within cohort study design was conducted with travellers arriving to Vanuatu by air (27/10/2020 – 7/12/2020).
- Travellers from low-risk countries aged 18+ years were eligible to participate.
- Individuals with pre-existing respiratory conditions or other health issues identified through health screening before entry were excluded from the study.
- The control group of the participants received standard monitoring (daily in-person visits).
- The intervention group participants received a daily SMS requesting a response coded for symptom development.

Results

- A total of 423 of 495 eligible travellers participated (response rate 85%)
  - Control group: 170 people
  - Intervention group: 253 participants
- A return SMS was received from 50% of participants that received a SMS
- Less than 2% of the intervention group and 0% of the control group reported symptoms
- 37% of participants completed post-intervention evaluation
- Reasons for not responding to the SMS included not activating the sim card (23% of females) and not understanding the instructions (35% of males)
- The SMS intervention had a high level of acceptability

Table 1: Summary description of control group and intervention group and outcome, 2020

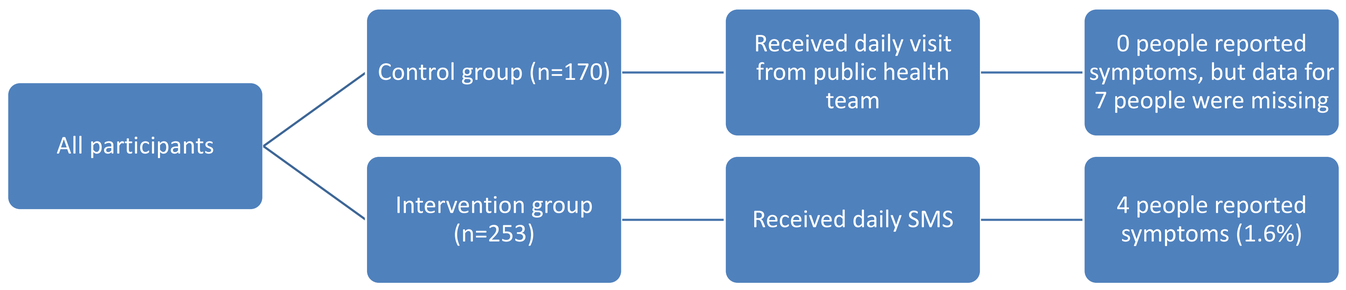
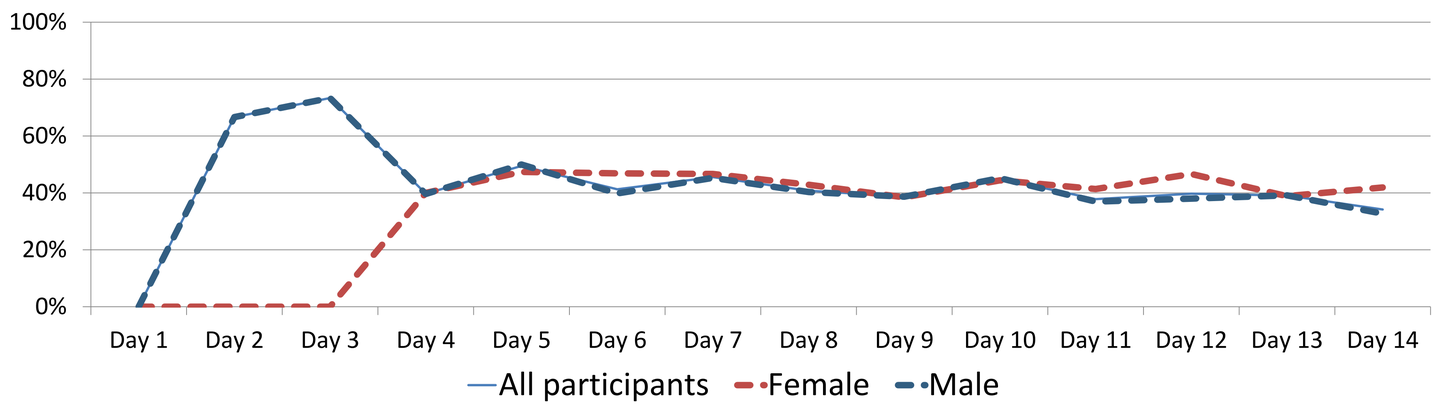


Figure 1. Response rate among participants in the intervention group by day of quarantine and be sex, 2020



Conclusions and Recommendations

- SMS is a useful tool to monitor symptom development among people in quarantine and broader public health programs that require participants follow-up
- Further work is required to address some technical issues however the intervention achieved 50% response
- Findings show that SMS is not inferior to in-person symptom detection and other methods such as telephone call may be explore.
- These findings have implications for COVID-19 response in settings with limited resources

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