Association of primary health care & country-level pandemic responses on rate of death from COVID-19: an international study

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Endorsing organizations

- Primary Health Care Research Consortium
- ROBERT GRAHAM CENTER
- NAPCRG
- Wonca
- EGPRN
- The George Institute for Global Health
- The Besrour Centre
# Approaches to address pandemics

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<table>
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<tbody>
<tr>
<td><strong>1 Block entry in country</strong></td>
<td><strong>Border control</strong>&lt;br&gt;<strong>Quarantine &amp; test arrivees</strong></td>
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<td><strong>2 Reduce the spread</strong></td>
<td><strong>Variety of primary health care (public health + primary care) measures</strong></td>
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<td><strong>3 Manage severe cases to reduce deaths</strong></td>
<td><strong>Hospitalisation, oxygenation, intensive care, ventilation</strong></td>
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## PHC (public health & primary care) responses

<table>
<thead>
<tr>
<th>Hygiene measures</th>
<th>Hand-washing</th>
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<tbody>
<tr>
<td></td>
<td>Personal protective equipment</td>
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<td>Limit person-to-person contact</td>
<td>Physical distancing</td>
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<td>Ban mass gatherings</td>
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<td></td>
<td>Primary care clinicians work remotely (e-consultations)</td>
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<td></td>
<td>Self-isolation, shutdown</td>
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<td>Identify cases</td>
<td>Testing</td>
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<td>Contact tracing</td>
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<td>Surveillance</td>
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Aim

Examine countries’ characteristics & strategies in dealing with COVID-19 from PHC perspective to determine:
- what factors correlate with rate of death
- what lessons may be learned to better address this & future pandemics

Method

- PHC clinicians, researchers, policy-makers
- English & Spanish versions
- Disseminated via PHC networks + snowballing
- Questions addressed:
  - nature of their PHC system
  - how it responded to the pandemic
  - use of health information technology
  - whether their country had pandemic plan
  - various strategies employed in response to the pandemic
Data for each country

- Participants’ survey data around country-level & PHC pandemic responses
- Maximum death rate on a 7-day moving average basis (response variable)
- Participants’ narratives (qualitative data)

Analyses

Univariate, bivariate & regression model analyses
Thematic analysis

Results

- 1131 responses from 114 countries - LIC, MIC & HIC, all world regions.
- Ranged from 158 (Australia) to 34 countries with single respondent from each
- Top 5 (>50 responses): Australia (163), NZ 99), Mexico (78), Malaysia (77), US (55)
- 73% primary care clinicians, 17% academics, 6% policy-makers, 4% other
- English version completed 92%, Spanish 8%
Distribution of respondents
Preliminary results

**TESTING** Death rates less where:
- Testing readily available at time of 1st COVID death
- Testing performed on incoming travellers
- Testing conducted for those exhibiting symptoms
- Testing conducted for those exposed to COVID-19 positive individuals

**MOVEMENT RESTRICTIONS** Death rates less where:
- Physical distancing
- Event closures
- Closure of all but essential services
- Isolation based on contract tracing
- Self-isolation in households
- Quarantine for suspected cases

**EXISTING STRONG PHC SYSTEM** Not correlated with death rates:
- If stopped at border, PHC irrelevant (eg small island nations)
- Response uncoordinated, public health & PC not integrated
- PC not engaged
- Lack of PPE, testing for community-based workers