Utilizing KAP COVID Survey Data for Social and Behavior Change Communication

December 8, 2020
Social and Behavior Change Communication (SBCC) Approach & Framework
The SBC process is one of divergence and convergence, iteratively exploring broadly, then deciding how to act. There are three key phases in this process: (1) Define, (2) Design and Test, and (3) Apply. These phases are linked by transitional stages where the strategy is developed and refined.
Ideation Factors and Variables

- Knowledge
- Beliefs & Attitudes (incl. Present bias)
- Self-Image
- Perceived Risk (incl. Loss aversion)
- Norms
- Heuristics (Scripts)
- Habits (Scripts)
- Response Efficacy
- Self- & Collective Efficacy
- Rewards & Incentives
- Emotion
- Social Influence
- Personal Advocacy
- Choice Architecture

Influence of factors and variables is simultaneous

Impact of factors and variables is cumulative—the more that are positive, the more likely behavior will occur

Communication can affect all of these factors and should be designed to do so
**Ideational Meta-Theory of Health Communication**

**COMMUNICATION MODES**
- INSTRUCTION
- DIRECTIVE
  - Dissemination
  - Promotion
  - Prescription
- NONDIRECTIVE
  - Entertainment
  - Counseling
  - Dialogue
  - Social Networks
- PUBLIC
  - Advocacy
  - Coalition
  - Regulation

**SKILLS & KNOWLEDGE**

**IDEATIONAL FACTORS**

**COGNITIVE**
- Attitudes (Beliefs & Values)
- Subjective Norms
- Self-Efficacy
- Perceived Risk
- Self-Image

**EMOTIONAL**
- Fear, Sadness, Affection
- Pleasure, Trust, Empathy

**SOCIAL**
- Mutual Understanding
- Cohesion & Reciprocity
- Collective Efficacy

**BEHAVIOR**

**INDIVIDUAL**
- Intention & Behavior

**COLLECTIVE**
- Leadership
- Participation
- Goal Setting
- Action

**HEALTH**
- PHYSICAL & MENTAL STATUS
- REDUCED MORBIDITY & MORTALITY from INFECTIOUS & CHRONIC DISEASES

**ENVIRONMENTAL CONTEXT: SUPPORTS & CONSTRAINTS**
- Burden of disease; access to health care & medical technology; access to food, potable water & sanitation; level of toxic chemicals in the air & water; population density; socio-economic conditions; public policy

Source: Kincaid, et al. (2013)
KAP COVID Survey Overview
Goal of the KAP COVID Survey

- Increase data-based decision making for SBC interventions related to COVID-19
Study Methodology

**Survey Implementation**

- Individuals responded to a notification on Facebook and gave consent before filling out the survey.
- An age verification question was used to screen out individuals below 18 years old.
- Individuals were presented with a random combination of question blocks. By design, not every participant was asked to respond to every question in the survey.

**Data Collection**

- 67 snap-shot countries
- 23 multi-wave countries
- Data collected with independent cross-section samples in 2-week waves beginning July 6, 2020
- Waves 1-7 Sample Size
  - Median: 3,798
  - Average: 3,964
  - Range: 521 – 10,662

**Limitations**

- Sampling bias: populations with higher FB usage and those with access to required technology & infrastructure were likely oversampled.
- Sampling weights were applied to account for some of these biases.
- Potential recall & social desirability bias.
# KAP COVID in the WHO Eastern Mediterranean Region & Globally

<table>
<thead>
<tr>
<th>Sample Sizes</th>
<th>wave1/snapshot</th>
<th>wave2</th>
<th>wave3</th>
<th>wave4</th>
<th>wave5</th>
<th>wave6</th>
<th>wave7</th>
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<td></td>
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<td>3493</td>
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<td>Iraq</td>
<td>3230</td>
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<td>5837</td>
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<td>876</td>
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</tr>
<tr>
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<td>3242</td>
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</tr>
</tbody>
</table>
KAP COVID DASHBOARD
https://ccp.jhu.edu/kap-covid/

Global and Regional View

With the rise of the COVID-19 pandemic, people around the world have been acquiring new knowledge, developing attitudes about the disease and adopting new prevention practices.

In July 2020, people in 87 countries were surveyed to describe these changes around the globe.

This visualization is designed for policymakers, public health messages and campaigns related to COVID-19.

Scroll down to explore findings across countries, or filter by WHO Region and select a country to highlight by filtering below.

Access the Dashboard

Individual Country Views

With the rise of the COVID-19 pandemic, people around the world have been gaining new knowledge, developing attitudes about the disease and adopting new prevention practices.

In July 2020, 3,000 people in the United States were surveyed to describe these factors related to COVID-19 prevention.

This visualization is designed for policymakers, public health officials and those who rely on data and information.

Click to view related dashboards

Access the Dashboard

US and India Subnational View

This dashboard provides a regional view of knowledge, attitudes and prevention practices in two countries, the United States and India.

Designed for policy makers and public health practitioners to build prevention campaigns and messages, this dashboard highlights regions and topic areas of interest. The India data was clustered using the country’s 8 administrative zones. While in the United States, data was clustered using the 9 census regions.

The data presented was collected in July 2020 as part of a global survey.

Start by selecting a country to view subnational data:

Access the Dashboard

Trend Analysis for 23 Countries

Public health programming benefits from frequent and timely sharing of data. Understanding trends in knowledge, attitudes and prevention practices help design programs to stifle COVID-19 infection across the globe.

Using interactive visualizations, seven waves of data starting from July 2020 describe changes in individual behaviors and attitudes related to the prevention of COVID-19 across 23 countries.

Look for blue text for opportunities to interact with the visualizations by selecting topics, individual or groups of countries and review changes in how people in those locations responded to the COVID-19 pandemic.

Click to view related dashboards

Access the Dashboard
Results within the WHO Eastern Mediterranean Region
Wave 1 & Snapshot data collected in July 2020 in 7 Eastern Mediterranean Countries
Self-Reported Prevention Behaviors
In the week prior to the survey, how did countries vary in their adoption of prevention behaviors?

**Regional Median**

- **E. Mediterranean**
  - Mask wearing: 81%
  - Physical distancing: 60%
  - Handwashing: 80%
  - Self-isolation: 33%

- **Globally**
  - Mask wearing: 88%
  - Physical distancing: 76%
  - Handwashing: 88%
  - Self-isolation: 30%
**COVID-19 Prevention Norms**

How did individuals view mask-wearing and physical distancing in their communities?

Believed at least 50% of people in their community **wear a face mask**

<table>
<thead>
<tr>
<th>Country</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>United Arab Emirates</td>
<td>90%</td>
</tr>
<tr>
<td>Pakistan</td>
<td>65%</td>
</tr>
<tr>
<td>Egypt</td>
<td>58%</td>
</tr>
<tr>
<td>Morocco</td>
<td>56%</td>
</tr>
<tr>
<td>Iraq</td>
<td>48%</td>
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<tr>
<td>Sudan</td>
<td>26%</td>
</tr>
<tr>
<td>Afghanistan</td>
<td>25%</td>
</tr>
</tbody>
</table>

Believed at least 50% of people in their community **maintain physical distance**

<table>
<thead>
<tr>
<th>Country</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
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<td>67%</td>
</tr>
<tr>
<td>Pakistan</td>
<td>38%</td>
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<tr>
<td>Egypt</td>
<td>35%</td>
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<tr>
<td>Morocco</td>
<td>34%</td>
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<tr>
<td>Afghanistan</td>
<td>24%</td>
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<tr>
<td>Sudan</td>
<td>22%</td>
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<tr>
<td>Iraq</td>
<td>20%</td>
</tr>
</tbody>
</table>

*JOHNS HOPKINS Center for Communication Programs*
Gaps between self-reported prevention behaviors and perceived community norms

<table>
<thead>
<tr>
<th>Country</th>
<th>Physical Distancing</th>
<th>Mask Wearing</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>self-reported behaviors</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Afghanistan</td>
<td>50%</td>
<td>24%</td>
</tr>
<tr>
<td>Egypt</td>
<td>64%</td>
<td>35%</td>
</tr>
<tr>
<td>Iraq</td>
<td>54%</td>
<td>20%</td>
</tr>
<tr>
<td>Morocco</td>
<td>74%</td>
<td>34%</td>
</tr>
<tr>
<td>Pakistan</td>
<td>60%</td>
<td>38%</td>
</tr>
<tr>
<td>Sudan</td>
<td>47%</td>
<td>22%</td>
</tr>
<tr>
<td>United Arab Emirates</td>
<td>78%</td>
<td>67%</td>
</tr>
<tr>
<td><strong>perceived community norms</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Afghanistan</td>
<td>55%</td>
<td>25%</td>
</tr>
<tr>
<td>Egypt</td>
<td>81%</td>
<td>58%</td>
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<td>Iraq</td>
<td>75%</td>
<td>48%</td>
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<tr>
<td>Morocco</td>
<td>88%</td>
<td>56%</td>
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<tr>
<td>Pakistan</td>
<td>83%</td>
<td>65%</td>
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<tr>
<td>Sudan</td>
<td>53%</td>
<td>26%</td>
</tr>
<tr>
<td>United Arab Emirates</td>
<td>92%</td>
<td>90%</td>
</tr>
</tbody>
</table>
Prevention behaviors reported by different demographic groups in Iraq and in UAE

<table>
<thead>
<tr>
<th></th>
<th>Iraq</th>
<th>United Arab Emirates</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>physical distancing</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>53%</td>
<td>78%</td>
</tr>
<tr>
<td>Male</td>
<td>56%</td>
<td>77%</td>
</tr>
<tr>
<td>30 or younger</td>
<td>44%</td>
<td>71%</td>
</tr>
<tr>
<td>31 or older</td>
<td>62%</td>
<td>81%</td>
</tr>
<tr>
<td>Urban</td>
<td>56%</td>
<td>80%</td>
</tr>
<tr>
<td>Rural</td>
<td>42%</td>
<td>53%</td>
</tr>
<tr>
<td>Secondary school or below</td>
<td>50%</td>
<td>67%</td>
</tr>
<tr>
<td>College/university or higher</td>
<td>56%</td>
<td>81%</td>
</tr>
<tr>
<td><strong>mask wearing</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>76%</td>
<td>97%</td>
</tr>
<tr>
<td>Male</td>
<td>75%</td>
<td>90%</td>
</tr>
<tr>
<td>30 or younger</td>
<td>73%</td>
<td>91%</td>
</tr>
<tr>
<td>31 or older</td>
<td>77%</td>
<td>93%</td>
</tr>
<tr>
<td>Urban</td>
<td>77%</td>
<td>94%</td>
</tr>
<tr>
<td>Rural</td>
<td>64%</td>
<td>74%</td>
</tr>
<tr>
<td>Secondary school or below</td>
<td>77%</td>
<td>85%</td>
</tr>
<tr>
<td>College/university or higher</td>
<td>75%</td>
<td>94%</td>
</tr>
</tbody>
</table>
## Knowledge of COVID-19 Symptoms and Treatment

Was general knowledge of COVID-19 consistent across the globe? Those surveyed:

<table>
<thead>
<tr>
<th>Knowledge of Symptoms and Treatment</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Knew 3 or more symptoms of COVID-19</td>
<td></td>
</tr>
<tr>
<td>Identified individuals most at risk for infection</td>
<td></td>
</tr>
<tr>
<td>Knew there was no FDA approved treatment or vaccine at the time of survey</td>
<td></td>
</tr>
<tr>
<td>Did not know any COVID-19 symptoms</td>
<td>100%</td>
</tr>
</tbody>
</table>

### Countries with Data:
- United Arab Emirates
- Egypt
- Morocco
- Iraq
- Sudan
Trust in Information Sources

• Which sources of COVID-19 information were most trusted?
• Which sources were most frequently accessed?
Fear of Infection
In which countries were individuals more/less afraid of contracting COVID-19?

Feared serious outcomes if infected

Believed COVID-19 threat to their community is dangerous

Believed people like them are likely to become infected

0%  20%  40%  60%  80%  100%
Acceptability of Potential Vaccine
How does acceptance of a vaccine vary across countries?
Trend analysis using multi-wave data in Egypt & Pakistan from July-October, 2020
Changes in Prevention Behaviors

- Overall, percentage of individuals reporting all behaviors is >50%
- However declining trends are observed from Jul-Oct 2020, especially in physical distancing
**Handwashing**

- Rates generally stable in most other countries
- Big declines from Jul-Oct 2020
  - Egypt: -6 percent points
  - Pakistan: -8 percent points
- High baseline rates
  - Egypt: 83% in wave 1
  - Pakistan: 80% wave 1
Mask Wearing

• Small fluctuations in most other countries
• Big declines from Jul-Oct 2020
  – Egypt: -16 percent points
  – Pakistan: -7 percent points
• High baseline rates
  – Egypt: 82% in wave 1
  – Pakistan: 83% in wave 1
Physical Distancing

- Rates generally stable, but downward trend in many countries
- Big declines from Jul-Oct 2020
  - Egypt: -12 percent points
  - Pakistan: -10 percent points
- Moderate baseline rates
  - Egypt: 65% in wave 1
  - Pakistan: 61% in wave 1
Changes in Vaccine Acceptance

- Decreased vaccine acceptability over time in most countries between July to October 2020, including Egypt and Pakistan
Conclusions

• Data on prevention behaviors reflect fluctuations within and between countries
  – Segmenting messages to address barriers for sub-groups will be critical for SBCC success

• Declining trend may reflect pandemic fatigue
  – Morgul, 2020: Using data from a large sample of individuals in Turkey, pandemic fatigue was associated with lower rates of mask wearing, handwashing, and physical distancing
Implications
Applying KAP Data for Strategy Development

- **Overaching goal:**
  - Develop a set of recommendations/messages/strategies for the national level Task Force and implementing partners.

- **RCCE data review**
  - Review the findings from the KAP dashboard.
    - Identify gaps in information.
    - Complement KAP COVID with local data.
      - Cultural dynamics/influences
      - Local research, service delivery trends or reports from around the country.
Applying KAP Data for Strategy Development

• The RCCE will develop localized theories & hypotheses based on knowledge of context.
  – Apply the ideation framework
    • Cognitive, emotional and social factors contribute to behavior change
  – Create formative research to verify or refute and inform next steps.
Thank you

Questions?

Follow-up?
ccpinfo@jhu.edu
https:// ccp.jhu.edu/kap-covid/
## Appendix: wave1/snapshot sample characteristics

<table>
<thead>
<tr>
<th>country</th>
<th>n</th>
<th>male</th>
<th>urban residence</th>
<th>post-secondary education</th>
<th>age 31 or older</th>
</tr>
</thead>
<tbody>
<tr>
<td>Afghanistan</td>
<td>3099</td>
<td>93.04%</td>
<td>83.28%</td>
<td>82.2%</td>
<td>42.86%</td>
</tr>
<tr>
<td>Egypt</td>
<td>4855</td>
<td>69.72%</td>
<td>79.78%</td>
<td>77.75%</td>
<td>57.84%</td>
</tr>
<tr>
<td>Iraq</td>
<td>3230</td>
<td>79.61%</td>
<td>87.04%</td>
<td>71.91%</td>
<td>62.54%</td>
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<td>Morocco</td>
<td>4134</td>
<td>72.24%</td>
<td>90.98%</td>
<td>68.46%</td>
<td>62.69%</td>
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<tr>
<td>Pakistan</td>
<td>4909</td>
<td>80.51%</td>
<td>81.79%</td>
<td>90.69%</td>
<td>55.94%</td>
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<tr>
<td>Sudan</td>
<td>3785</td>
<td>75.52%</td>
<td>91.44%</td>
<td>81.96%</td>
<td>51.21%</td>
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<tr>
<td>UAE</td>
<td>3242</td>
<td>67.26%</td>
<td>93.49%</td>
<td>81.44%</td>
<td>70.87%</td>
</tr>
</tbody>
</table>
Appendix: COVID-19 infection severity in the 7 East Mediterranean countries from Feb-Nov 2020

Daily new confirmed COVID-19 cases per million people

Shown is the rolling 7-day average. The number of confirmed cases is lower than the number of actual cases; the main reason for that is limited testing.