



Background

SCHOOL OF MEDICINE

CASE WESTERN RESERVE

Saudi Arabia has not been spared from the devastating impacts of the Coronavirus. Since the announcement of the first case of COVID-19 inside the Kingdom on March 2nd, 2020, the numbers of confirmed cases and contacts have increased in different regions. On August 23rd, 2020, which is the same month that we started our project – *Towards* Zero COVID-19 - the total number of cases registered in the Kingdom reached 307,479 positive COVID-19 cases, and the total deaths reached 3,649 cases

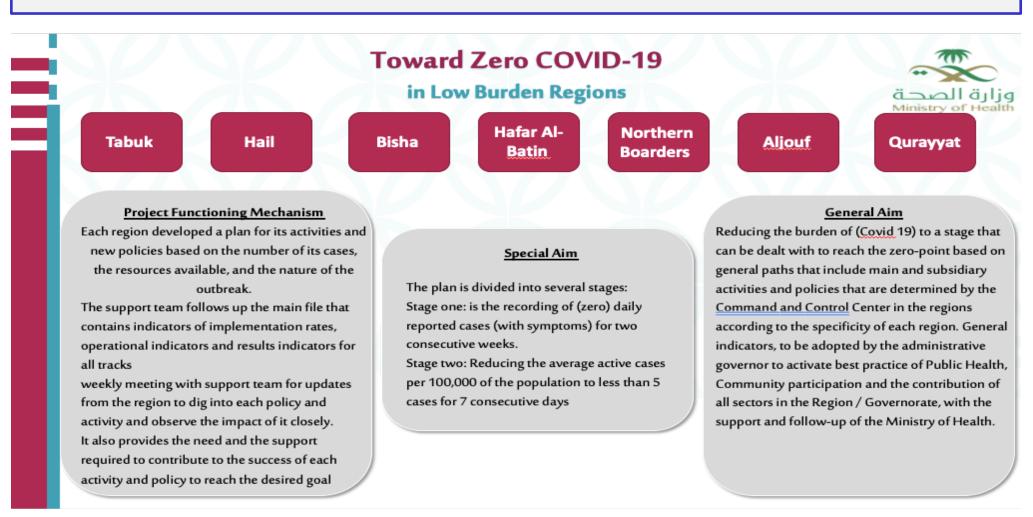


Figure 1: The general aim and specific objectives of The Toward Zero COVID-19 Project and the seven Regions

Population

The Public Health Agency at the Ministry of Health looked at seven Regions from the 22 central medical Regions within the Kingdom to implement the 'Towards' Zero COVID-19 Project'. These seven Regions are known for smaller populations, so they were pilot areas.

| | I |) | 2 | 1 | |
|------------------|------------|-----------|----------------|----------|---------|
| Region | Population | Hospitals | Primary Health | Tetamman | Taakad |
| | | | Care Clinics | Clinics | Testing |
| | | | | | |
| | | | | | |
| Tabuk | 968,414 | 12 | 94 | 10 | 1 |
| Aljouf | 362,580 | 9 | 40 | 3 | 1 |
| Northern Borders | 390,656 | 11 | 41 | 3 | 1 |
| Hail | 746,046 | 14 | 111 | 11 | 1 |
| Qurayyat | 180,430 | 4 | 18 | 2 | 1 |
| Hafar Al-Batin | 476,443 | 7 | 37 | 4 | 0 |
| Bisha | 414,197 | 8 | 51 | 5 | 0 |

table shows the resources of these the seven Regions.





At the beginning of our project, specifically in the 39th International Week as it is shown in the following table, a total of 202 initiatives and policies were divided into general paths into all seven Regions; *Community Involvement* had the highest rate of 60 initiatives and policies, due to the importance followed by *High Authority Commitment* in the Region, which included 50 .Next, Optimum Use of Public Health Tools and Labs with 44, and finally the Use of Electronic Applications with 42.

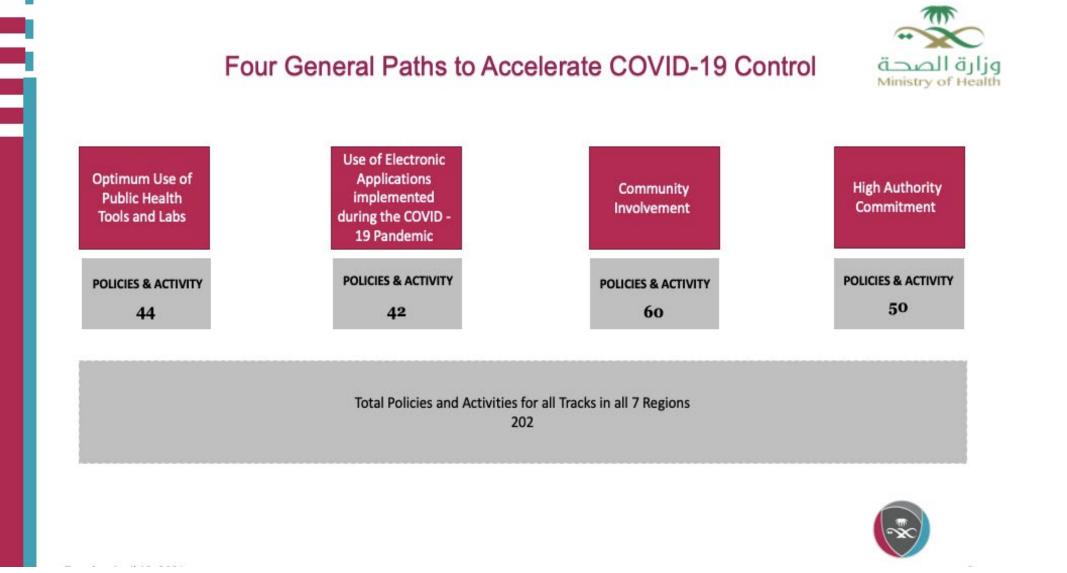


Figure 3: table shows the four general paths with number of policies and activities.

Activities

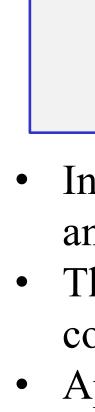
- Follow up the policies and initiatives implemented by the seven regions.
- Follow up the daily data of operational and outcomes indicators that developed by the project team
- Escalation to the project management in the event of raising numbers of the indicators and when support is needed
- Organizing, and leading meetings with the health leaders of the seven Region.
- Create weekly epidemiological report of all operational and outcomes indicators and communicate it to all stakeholders.

| | | | | es of the General paths |
|----------------------|--|---------------------|----------------------|--|
| Region | Community Involvement | | Region | High Authority Commitment |
| Tabuk | Forming field teams of volunteers to conduct educational and awareness tours and set a schedule to cover all gathering places, commercial markets, service facilities and government facilities | Promi | Tabuk | The initiation with full ownership from the governor, His Royal Highness, Prince of the region |
| Tabuk | Providing direct health education, and awareness to ensure the implementation of precautionary measures, through direct visits to public places, government facilities, airports, beaches and parks in the region | rominent Activities | Qurayyat | Activating visual screening at all region boarders |
| Qurayyat | Health education in Mosques sermons and gathering places | tivitie | Northern Boarders | An initiative to honor shops and establishments committed to implementing precautionary measures by the region's governor. And announcing this on social media platforms |
| Hafar Al- Batin | , community figures, sheikhs, councils, and initiators to deepen the impact of health awareness and supports the national health efforts and commitment to preventive precautions | ж | Aljouf | Assisting in spreading health awareness and executing the regular measures that help implement the plan within the authorities of the district and city municipalities |
| Region | Optimum Use of Public Health Tools and Labs | | Region | Use of Electronic Applications implemented during the COVID - 19 Pandemic |
| Tabuk | Requiring companies to replace workers' housing that does not meet the health requirements and standers | Prominent | Hail | The region requested community influencers and celebrities to urge followers to activate electronic health applications |
| Qurayyat | Active surveillance of high-risk places and escalate to close | iner | | Activating the use of electronic applications for all government |
| Northern Boarders | Communicating with positive cases and raising awareness of the importance of home quarantine in daily bases | | Qurayyat | employees |
| lafar Al- Batin | Expanding the regional laboratory services to include molecular polymerase and other available analyzes | Activities | Northern Boarders | Disseminating awareness messages and all news about the pandemi through the official email of all employees in all sectors |

Figure 4: table shows the role model of best activities of the four general paths



Figure 8: table shows first report of the Results Indicators in International Week 39 of 2020



- daily monitoring of their progress has ensured the controlling the epidemiological situation
- Appropriately managing policies and initiatives with
- Despite the passage of a second wave over all regions of the Kingdom of Saudi Arabia, the impact on these seven regions was slight

Public Health Policies and Initiatives: Towards Zero COVID-19 Project in Saudi Arabia **Committee Members: Susan Phillips DNP, MPH, PMHCNS, Andrew Morris, MPH DEPARTMENT OF POPULATION AND** QUANTITATIVE HEALTH SCIENCES

Learning Objectives

• Create a public health project from scratch.

• Evaluate public health initiatives and analyze the outcome of the initiatives

• Assess and create epidemiological reports and analyze data for decision makers

Deliverables

• A comprehensive report

• A file of the most Prominent initiatives for the four general paths for the 7 regions.

• Epidemiological follow-up forms

| rnational 39 | week | | <u>O</u> p | peration | al Indic | <u>ators</u> | | | من Ministr | |
|----------------------|------------------|-------------------|------------|------------------|-------------------|--------------|----------------------------------|-------------------|---------------|--|
| | Monito | oring societal be | haviors | L | aps (average time |) | Activate Applications (Tetamman) | | | |
| Regions | Weekly change | Current situation | Baseline | Weekly change | Current situation | Baseline | Weekly change | Current situation | Baseline | |
| Qurayyat | 16% 👔 | 91% | 82% | 12 H 肯 | 24 H | 116 H | 1% 👔 | 22% | 33.33% | |
| Aliouf | 1% 肯 | 66% | 73% | 0H = | 18 H | 240 H | 30% 👢 | 23% | 25.60% | |
| Northern Boarders | 17% Î | 57% | 75% | 0 H = | 24 H | 74 H | 3% Î | 30.25% | 35.02% | |
| Hafar Al- Batin | 1% 👔 | 90% | 82% | 0H = | 14 H | 72 H | 1% 🖡 | 70% | 35.01% | |
| Bisha | 8% 👔 | 93% | 91% | 0H = | 20 H | 72 H | 0% = | 48.79% | 33.12% | |
| Hail | 2.5% 👔 | 70.5% | 60% | 10 H 🌷 | 36 h | 48 H | 29% 👃 | 1.33% | 29.38 | |
| Tabuk | 16% 👔 | 92% | 84% | 8H 🕇 | 48 H | 116 H | 11% 👔 | 58% | 22.91% | |

Figure 7: table shows first report of the operational Indicators in International Week 39 of 2020

| De | velopme | ents in th | ne Epide | miologi | cal Situa | tion an | d the Im | pact of A | Activitie | s & Polic | ies |
|-----------------|--------------------------|------------------|-------------------|----------|------------------|-------------------|----------|------------------|-------------------|-----------|------------------------------------|
| International v | veek | | | Res | sults ir | <u>ndicat</u> | ors | | | | ** |
| 39 | | | | | | | | | | | وزارة الصحـة Ministry of Health |
| | | % Positi | ivity in Lab | oratory | | Admission | | Rep | orted daily o | ases | |
| | | Weekly change | Current situation | Baseline | Weekly change | Current situation | Baseline | Weekly change | Current situation | Baseline | |
| | Qurayyat | 1% 🌷 | 22% | 21% | 3 🌡 | 22 | 7 | 15 🌷 | 3 | 0 | |
| | Aljouf | 3% 🕇 | 23% | 30% | 0 = | 56 | 130 | 2 🌡 | 6 | 3 | |
| | Northern Boarder s | 8% 👔 | 31% | 49% | 2 🏨 | 23 | 52 | 11 👔 | 64 | 21 | |
| | Hafar Al- Batin | 0% = | 69% | 60% | 10 👔 | 63 | 127 | 0 = | 2 | 27 | |
| | Bisha | 1% 👔 | 24% | 38% | 1 🌡 | 8 | 48 | 2 🌡 | 105 | 148 | |
| | Hail | 10% 🌷 | 16% | 72% | 4 🌡 | 32 | 92 | 2 🖡 | 0 | 16 | |
| | Tabuk | 25.6% | 12.6% | 30% | 1 🕇 | 6 | 34 | 0 🕇 | 0.1 | 0 | |
| * Baseline | is the date of | August 1, Inte | ernational We | eek 31 | | | | | | | |

Results

- In general, there was an improvement in the operational and outcome indicators
- These initiatives and policies played a significant role in controlling and decreasing the number of cases.

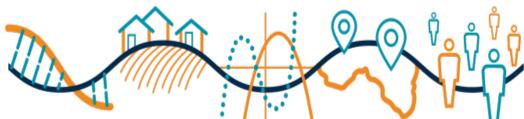




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- important role in reducing the spread of infection Health in implementing health measures contributed greatly to curbing the second wave and promoting public health
- Society's commitment to precautionary measures has an • The cooperation of other sectors with the Ministry of
- Electronic applications facilitated access to health services and following-up of infected cases and close contacts





| national 10 | | 2021 | <u>U</u> | peration | <u>ai indic</u> | ators | | | صحة Ministry o |
|----------------------|------------------|--------------------|----------|------------------|-------------------|----------|------------------|-------------------|-------------------|
| | Moni | toring societal be | haviors | L | aps (average time |) | Activate | Applications (Tet | amman) |
| Regions | Weekly change | Current situation | Baseline | Weekly change | Current situation | Baseline | Weekly change | Current situation | Baseline |
| Qurayyat | 1% 👔 | 91% | 82% | 0H = | 12 H | 116 H | 1% 👔 | 85% | 33.33% |
| Aljouf | 2% 👔 | 89% | 73% | 0H = | 18 H | 240 H | 2% 👢 | 79% | 25.60% |
| Northern Boarders | 0% | 75% | 75% | 0 H = | 13 H | 74 H | 3% 1 | 69% | 35.02% |
| Hafar Al- Batin | 1% 🖡 | 90% | 82% | 0H = | 14 H | 72 H | 1% 👃 | 80% | 35.01% |
| Bisha | 5% 1 | 93% | 91% | 0 H = | 20 H | 72 H | 0% = | 84% | 33.12% |
| Hail | 0% 🦊 | 70% | 60% | 0 H = | 15 h | 48 H | 1% 1 | 76% | 29.38 |
| Tabuk | 8% 1 | 92% | 84% | 1H 🕇 | 15 H | 116 H | 11% 👔 | 85% | 22.91% |

Figure 9: table shows most current report of the Operational Indicators in International Week 10 of 2021

Developments in the Epidemiological Situation and the Impact of Activities & Policies **Results indicators** 2021 وزارة الصحة Ministry of Health Reported daily cases % Positivity in Laboratory for confirmed cases of Cov 21% 3 🧵 22 7 1 🔒 1 0 5% 👢 8% 30% 4 1 38 130 2 1 5 3 1% 1 19%

 2% 1
 21%
 49%
 2 1
 20
 52
 11 1
 15
 21

127 0 = 0 27 38% 0 = 5 48 1 🎚 0 148 4 🌡 28 92 1 🕇 4 16 72% 30% 2 🌡 10 34 2 🕇 4 0 5.6% 5% * Baseline is the date of August 1. International Week

Figure 10: table shows most current report of the Results Indicators in International Week 10 of 2021

Lessons Learned

- Applying resources and ideas to ensure adequate lelivery of listed initiatives.
- How to organize and lead team meetings
- Iow to communicate effectively with different stake olders.
- Iow to create a public health project from scratch.
- Iow to evaluate public health initiatives and analyze he outcome.
- How to assess and create epidemiological reports and analyze data for decision makers

Public Health Implications