

Public Health Policies and Initiatives: Towards Zero COVID-19 Project in Saudi Arabia

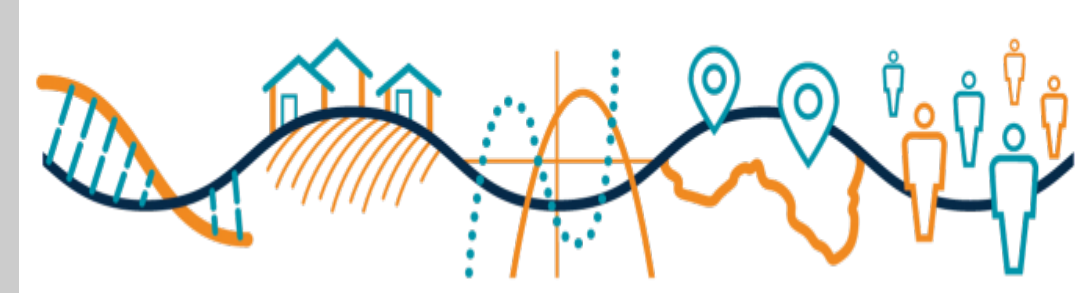


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Background

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

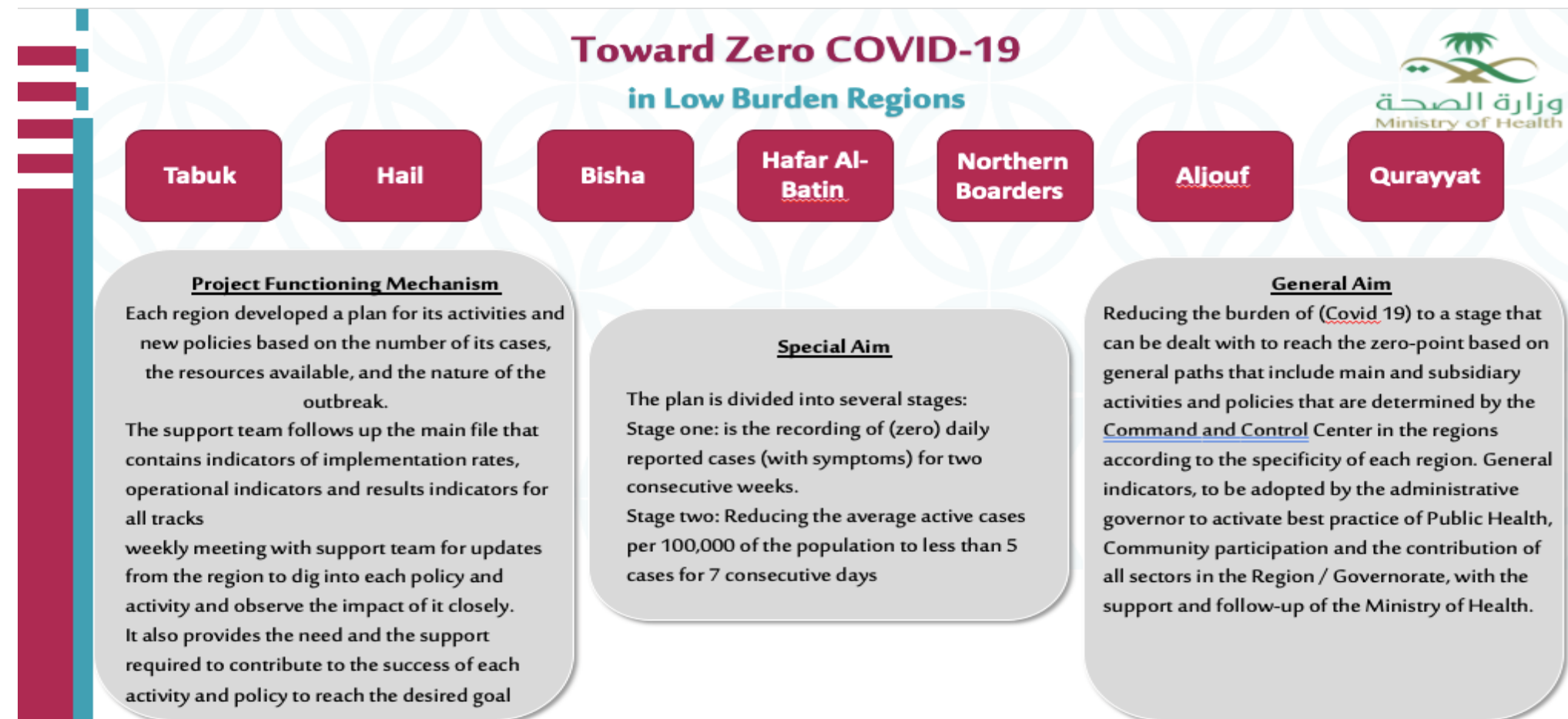


Figure 1: The general aim and specific objectives of The Toward Zero COVID-19 Project and the seven Regions

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.

Region	Population	Hospitals	Primary Health Care Clinics	Tetaman Clinics	Taakad Testing
Tabuk	968,414	12	94	10	1
Aljuf	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

Figure 2: table shows the resources of these the seven Regions.



Methods

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.

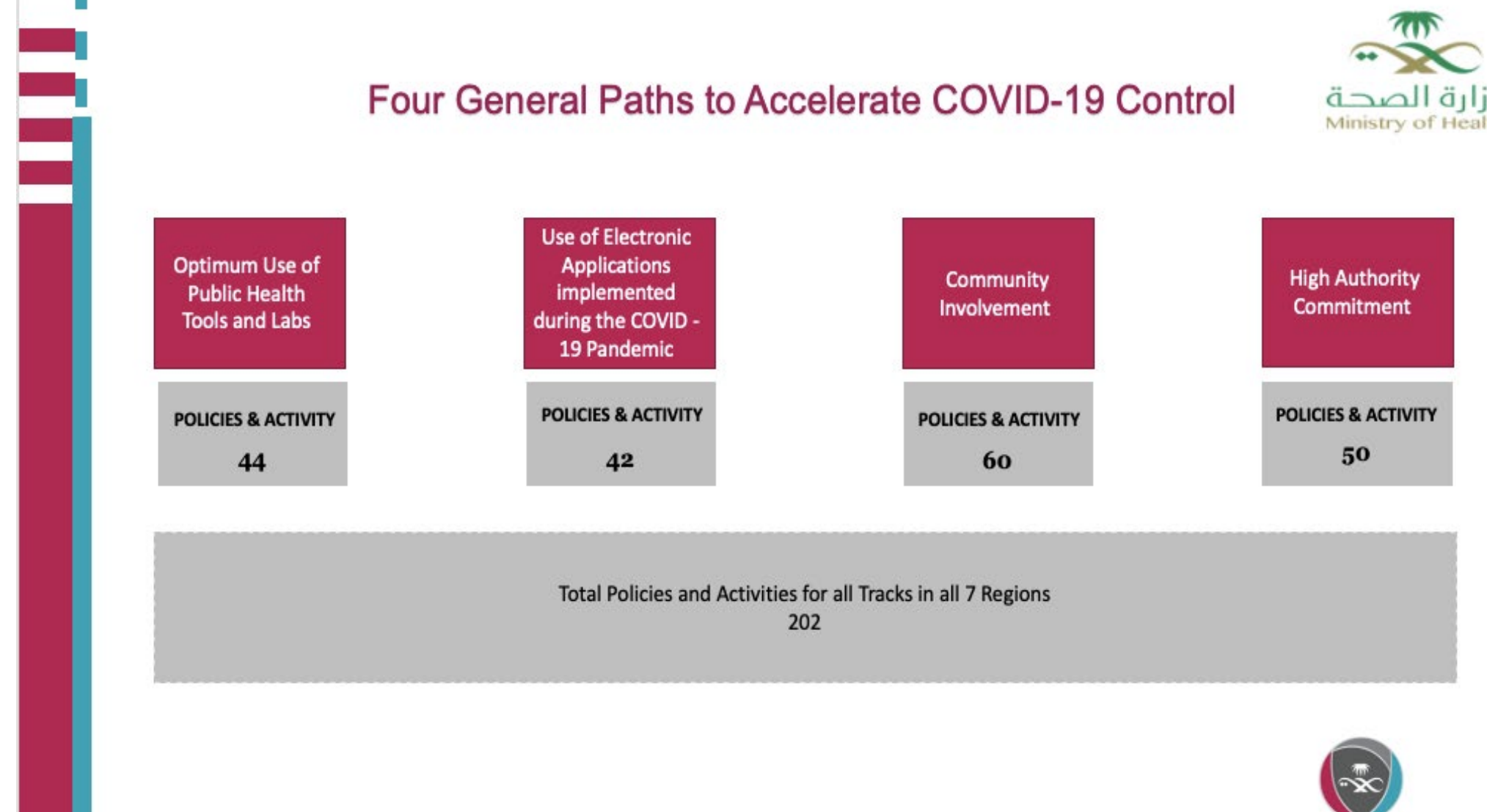


Figure 3: table shows the four general paths with number of policies and activities.

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.

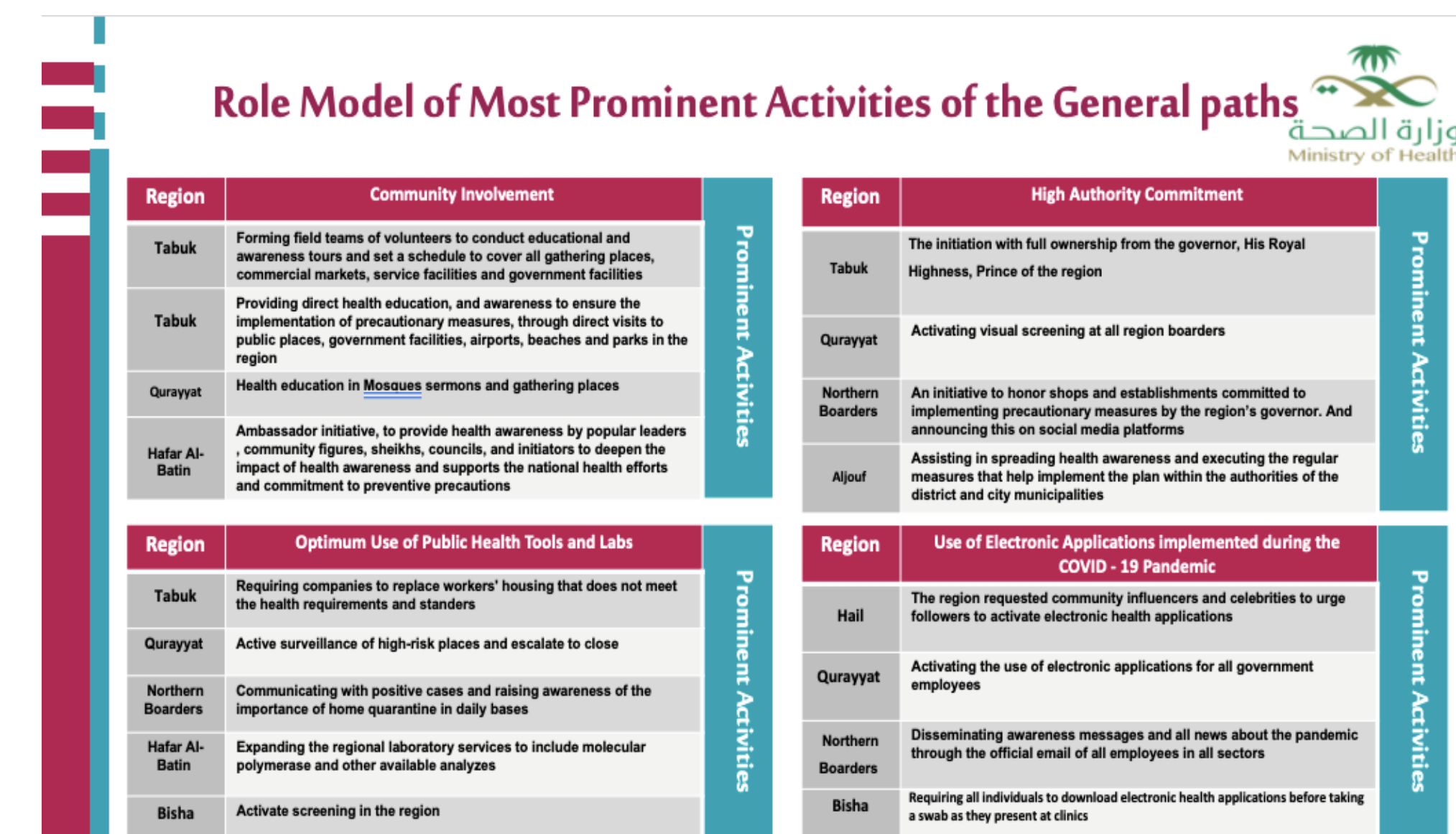


Figure 4: table shows the role model of best activities of the four general paths

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

Operational Indicators - International Week 39, 2020

Regions	Monitoring societal behaviors			Laps (average time)			Active Applications (Tetaman)		
	Weekly change	Current situation	Baseline	Weekly change	Current situation	Baseline	Weekly change	Current situation	Baseline
Qurayyat	16% ↑	91%	82%	12 H ↑	24 H	116 H	1%	22%	33.33%
Aljuf	1% ↑	66%	73%	0 H =	18 H	240 H	30%	23%	25.60%
Northern Borders	17% ↑	57%	75%	0 H =	24 H	74 H	3%	30.25%	35.02%
Hafar Al-Batin	1% ↑	90%	82%	0 H =	14 H	72 H	1%	70%	35.01%
Bisha	8% ↑	93%	91%	0 H =	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%	8 H ↑	48 H	116 H	11%	58%	22.91%

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

Results Indicators - International Week 39, 2020

Regions	% Positivity in Laboratory			Admission (for confirmed cases of Covid)			Reported daily cases		
	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
Aljuf	3%	23%	30%	0 =	56	130	2 ↓	6	3
Northern Borders	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

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

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

Operational Indicators - International Week 10, 2021

Regions	Monitoring societal behaviors			Laps (average time)			Active Applications (Tetaman)		
	Weekly change	Current situation	Baseline	Weekly change	Current situation	Baseline	Weekly change	Current situation	Baseline
Qurayyat	1%	91%	82%	0 H =	12 H	116 H	1%	85%	33.33%
Aljuf	2%	89%	73%	0 H =	18 H	240 H	2%	79%	25.60%
Northern Borders	0%	75%	75%	0 H =	13 H	74 H	3%	69%	35.02%
Hafar Al-Batin	1%	90%	82%	0 H =	14 H	72 H	1%	80%	35.01%
Bisha	5%	93%	91%	0 H =	20 H	72 H	0%	84%	33.12%
Hail	0%	70%	60%	0 H =	15 H	48 H	1%	76%	29.38
Tabuk	8%	92%	84%	1 H ↑	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

Results Indicators - International Week 10, 2021

Regions	% Positivity in Laboratory			Admission (for confirmed cases of Covid)			Reported daily cases		
	Weekly change	Current situation	Baseline	Weekly change	Current situation	Baseline	Weekly change	Current situation	Baseline
Qurayyat	5%	8%	21%	3 ↓	22	7	1 ↓	1	0
Aljuf	1%	19%	30%	4 ↑	38	130	2 ↓	5	3
Northern Borders	2%	21%	49%	2 ↑	20	52	11 ↑	15	21
Hafar Al-Batin	2%	16%	60%	10 ↓	35	127	0 =	0	27
Bisha	1%	6%	38%	0 =	5	48	1 ↓	0	148
Hail	2%	18%	72%	4 ↓	28	92	1 ↓	4	16
Tabuk	25.6%	5%	30%	2 ↓	10	34	2 ↓	4	0

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 delivery of listed initiatives.
- How to organize and lead team meetings
- How to communicate effectively with different stake holders.
- How to create a public health project from scratch.
- How to evaluate public health initiatives and analyze the outcome.
- How to assess and create epidemiological reports and analyze data for decision makers

Public Health Implications

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